

Summary Report

**National Workshop
On
Professional Development of Science Teachers and Researchers of Higher
Educational Institutions
(18-24 November, 2019)**

**Organised by
Acharya B. N. Seal College
Coochbehar
[Accredited by NAAC with Grade A]**

***In Collaboration with*
Bioinformatics Facility
University of North Bengal**

&

***In Association with*
Directorate of Higher Education
Government of West Bengal**

**Venue
Vidyasagar Sabhagriha
Acharya B. N. Seal College
Cooch Behar 736 101, W.B.**

**Government of West Bengal
Acharya Brojendranath Seal College
Coochbehar-736101**

**National Workshop on Professional Development of Science Teachers and
Researchers of Higher Educational Institutions**

Context of the Workshop

A national workshop with concerted effort of Science departments including Geography of ABN Seal College was held from **18th to 24th November, 2019** (seven days) to augment science concepts and research methodologies towards meeting the national, state, and regional curriculum standards.

This seven day workshop was held in a stimulating and resource-rich environment where the delegates will participate in sessions on topics including effective teaching strategies, course design, establishing a research program in a new setting, working with research institutions, balancing professional and personal responsibilities.

The workshop aimed to improve the teaching and research skills & competence amongst the teachers and researchers by putting impetus on their theoretical knowledge as well as by giving them hands-on training via plethora of learning modules aimed at professional development of the participants.

Objectives

The main objectives and expected outputs of the workshop are to identify and recommend appropriate innovative ideas for science teaching and research with due consideration to local ecological, socio-economic, and cultural conditions. It would comprise:

- Defining of clear teaching and research problems.
- Innovative teaching and research targeted to social and economic interest.
- Qualitative and Quantitative Research Design.
- Application of Statistical Tools in research.
- Hands-on activities integrating science, mathematics, multimedia technology and environmental awareness.

ORGANISING COMMITTEE:

Patron: Dr. Deb Kumar Mukherjee, Hon'ble Vice Chancellor, Cooch Behar Panchanan Barma University

Advisors: Dr. Tushar Kanti Ghara, Joint Director of Public Instructions, Dep. of Higher Education, GOWB

Head, Department of Education, Cooch Behar Panchanan Barma University, Coochbehar

Dr. Prites Chandra Biswas, Secretary, Teachers' Council, ABN Seal College, Coochbehar

President: Dr. Bimal Kumar Saha, Officer-in-Charge, ABN Seal College, Coochbehar

Vice President:

Dr. Samir Kumar Samanta (Dept. of Geography)

Organising Secretary:

Dr. Binod Chandra Sharma (Dept. of Botany)

Jt. Organising Secretaries:

Sri Hemen Biswas (Dept. of Zoology)

Dr. Tuhin Suvro Banerjee (Dept. of Physiology)

Sri Ajoy Das (Dept. of Botany)

Sri Biplab Kumar Mondal (Dept. of Physics)

Jt. Cashier/Treasurers:

Sri Chayan Saha (Dept. Of Physics)

Sri Amar Sha (Dept. of Maths).

Members:

Smt. Suchismita Maity (Dept. of Physics)

Smt. Payel Banik (Dept. of Physiology)

Smt. Anindita Chakraborty (Dept. of Physiology)

Smt. Suchandra Bhattacharya (Dept. of Chemistry)

Organising Committee (In-House)

Convener: Sri Srijit Das, Department of Chemistry

Invitation, Reception& Registration

Suchismita Maity
Suchitra Ray
Payel Banik
Suchandra Bhattacharya
Kalyan Sinha
Pasang Th. Dukpa
Sahidul Karim

Printing and Publication

Aninda Mandal
Partha Sarathi Debnath
Tuhin Suvro Banerjee
Satadal Adhikary

Publicity

Chayan Saha (website uploading)
All HODs

Hall Management

Writuparna Chakraborty
Arijit Chakraborty
Ajoy Das
Tausif Sk.
Anindita Chakraborty
Kaustav Kundu
Anirban Pandey

Hospitality/ Refreshment

Tridib Chakraborty
Partha Sarathi Debnath
Payel Banik
Amiya Biswas
Suchandra Bhattacharya
Abu Bakkar Sidduiqi
Amit Pramanik
Debojyoti Datta

Digital Recording

Ramkrishna Pramanik
Alokemoy Basu
Satadal Adhikary

Transport and Accommodation

Hemen Biswas
Alokemoy Basu
Arijit Chakraborty
Tridib Chakraborty
Partha Das
Kalyan Sinha
Subrata Mandal

Rapporteurs

Suchitra Ray
Chayan Saha
Satadal Adhikary
Aninda Mandal
Tausif Sk.
Pasang Th. Dukpa
Amit Pramanik
Ajoy Das

Session Management

Samir Kumar Samanta
Ramkrishna Pramanik
Sankar Mandal
Writuparna Chakraborty
Alokemoy Basu
Tridib Chakraborty

List of Resource Persons

18/11/19

Dr. Tushar K Ghara

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19/11/19

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Dr. Deb Prakash Pahari

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**National Workshop on Professional Development
Of Science Teachers and Researchers of Higher Educational Institutions
A.B.N.Seal College, Cooch Behar, (18-24 November, 2019)**

List of Participants

Sl. No.	Name	Designation	Department	College	Phone No.
1.	Satadal Adhikary	Assistant Professor	Zoology	A.B.N.Seal College	8981234115
2.	Abhisek Saha	Assistant Professor	Chemistry	Tufanganj Mahavidyalaya	7001036581
3	Dr. Aninda Mandal	Assistant Professor	Botany	A.B.N.Seal College	9434602182
4	Dr. Tuhin Suvro Banerjee	Assistant Professor	Physiology	A.B.N.Seal College	8017929760
5.	Dr. Tridib Chakraborty	Assistant Professor	Physiology	A.B.N.Seal College	9831171341
6.	Ajoy Das	Assistant Professor	Botany	A.B.N.Seal College	7432899707
7.	Srijit Das	Assistant Professor	Chemistry	A.B.N.Seal College	7479308778
8.	Md Tausif SK	Assistant Professor	Mathematics	A.B.N.Seal College	9609167815
9.	Chayan Saha	Assistant Professor	Physics	A.B.N.Seal College	9832549300
10.	Suchismita Maiti	Assistant Professor	Physics	A.B.N.Seal College	9434255720
11.	Biplab Kumar Mandal	Assistant Professor	Physics	A.B.N.Seal College	9732741013
12.	Amar Sha	Assistant Professor	Mathematics	A.B.N.Seal College	9046447484
13.	Suchitra Ray	Assistant Professor	Geography	A.B.N.Seal College	9564730418
14.	Pasang Tshering Dukpa	Assistant Professor	Physiology	A.B.N.Seal College	08770984137
15.	Subrata Mondal	Assistant Professor	Geography	A.B.N Seal College	9749160428
16.	Sahidul Karim	Assistant Professor	Geography	A.B.N Seal College	9732409476
17.	Ranjan Barman.	Assistant Professor	Mathematics	Dinhata College	7602981104

18.	Dr. Amit Pramanik	Assistant Professor	Chemistry	A. B. N. Seal College	9874446466
19.	Suchandra Bhattacharya	Assistant Professor	Chemistry	A. B. N. Seal College	9476362838
20.	Dr. Alokemoy Basu	Assistant Professor	Botany	A. B. N. Seal College	9432137598
21.	Debashis Kumar Mandal	Assistant Professor	Mathematics	Kalimpong College	
22.	Dr. Rabindra Dey	Assistant Professor	Chemistry	Coochbehar College	9832047672
23.	Manjil Gupta	Assistant Professor	Zoology.	Dinhata College	9126082716
24.	Hemen Biswas	Assistant Professor	Zoology	A.B.N.Seal College	8910614457
25.	Partha Sarathi Debnath	Assistant Professor	Physics	A.B.N.Seal College	9474590804
26.	Dr. Sulagna Dutta	Assistant Professor	Physics	Mathabhanga College	
27.	Partha Das	Assistant Professor	Geography	A.B.N.Seal College	9883441764
28.	Dr. Prites Ch Biswas	Assistant Professor	Geography	A.B.N.Seal College	9748633080
29.	Dr. Writuparna Chakraborty	Assistant Professor	Geography	A.B.N.Seal College	8942824348
30.	Payel Banik	Assistant Professor	Physiology	A.B.N.Seal College	08770984137
31.	Dr. Manoj Majumder	Assistant Professor	Chemistry	Mathabhanga College	9474963981
32.	Dr.Binod Ch. Sharma	Associate Professor	Botany	A.B.N.Seal College	9434575465
33.	Dr. Bappa Sarkar	Assistant Professor	Geography	Dinhata College	9475835341
34.	Sariful Hoque	Assistant Professor	Botany	Dinhata College	7872341200
35.	Himangshu Barman	Assistant Professor	Zoology	Ramnagar College	

ABN Seal College
Coochbehar-736101, WB, India

**National Workshop on Professional Development of Science Teachers and
 Researchers of Higher Educational Institutions
 (18-24 November, 2019)**

Program Schedule

DATE & TIME	EVENT / RESOURCE PERSON / TITLE
17/11/19	
4:00 pm	Garlanding the statue of Kabiguru Rabindranath Tagore and Acharya Brojendra Nath Seal
4:15 pm	Flag Hoisting of ABN Seal College, NCC, NSS, ABNSCPTA, ABNSCAA
4:30 pm	MANGALACHARAN
18/11/19	
8:30 am	Accosting and reception of the Patron, Guests, etc. at the College gate through garlanding, blow of conch shell, flower petals, Uttariya and sandal paste on the forehead
9:00 am	Registration
9:30 am	Inauguration
9:35 am	Welcome address by Organising Secretary
9:40 am	Address by Dr. Deb Kumar Mukherjee, Hon'ble Vice Chancellor, Cooch Behar Panchanan Barma University, Vivekananda Street, Cooch Behar, WB, India
9:45 am	Address by Dr. Arnab Sen, Professor of Botany and Coordinator & Head, Department of Bioinformatics, University of North Bengal, WB, India
9:50 am	Address by Dr. Bimal Kumar Saha, President & Officer-in-Charge, A.B.N. Seal College, Cooch Behar, WB
10.00am-11:30 am	Deliberation by Dr. Tushar Kanti Ghara, Joint DPI, Department of Higher Education, Government of West Bengal&SNO AIHSE WB and Nodal Officer, NAAC WB <i>Title: Relevance of Professional Development on Assessment and Evaluation System under Revised NAAC Framework</i>
11:45 am-12:00 noon	Tea Break
12:00 noon-1:15 pm	Deliberation by Dr. Ramdas Chatterjee, Former Head, Dept. of Tumor Virology, Chittaranjan National Cancer Institute, Kolkata <i>Title: An insight into oral cancer and precancer with special reference to North Bengal</i>
1:15 – 2:15 pm	Lunch Break
2:15 – 3:30 pm	Deliberation by Prof. (Dr.) Prabir Kumar Haldar, Dean (Science) & Professor of Physics, Cooch Behar Panchanan Barma University, Cooch Behar, WB

DATE & TIME	EVENT / RESOURCE PERSON / TITLE
	<i>Title: Introduction to Particle Physics</i>
3:30-3:45 pm	Tea Break
3:45-4:30 pm	Interactive Session and Discussion
4:30 -5:00 pm	Summary report by Rapporteurs
19/11/19	
10:30-11:30 am	Deliberation by Dr. Arnab Sen, Professor of Botany and Coordinator & Head, Department of Bioinformatics, University of North Bengal, WB, India <i>Title: Introduction to Bioinformatics with special reference to microbial genomics</i>
11:30-11:45 am	Tea Break
11:45 am-1:15 pm	<i>Hands on Training on: Codon and Amino acid usage using CodonW software: By Dr. Arnab Sen, Reha Labar and Soumita Bhattacharjee</i>
1:15-2:15 pm	Lunch Break
2:15-3:15 pm	<i>Hands on training on: Phylogenetic tree construction using MEGA software: By Dr. Arnab Sen, Pallab Kar and Supriyo Ghosh</i>
3:15-4:15pm	<i>Hands on training on: Homology modelling: By Dr. Arnab Sen, Arnab Chakraborty and Swarup Das</i>
4:15-4:30 pm	Tea Break
4:30-5:00 pm	Summary report by Rapporteurs
20/11/19	
10:30-11:45 am	Deliberation by Dr. Suman Das, Associate Professor, Department of Chemistry, Jadavpur University, WB <i>Title: Understanding Physical Chemistry- Some difficulties</i>
11:45 am – 12:00 noon	Tea Break
12:00 noon- 1:15 pm	Deliberation by Dr Kajal Kumar Mondal, Associate Professor & Head, Department of Mathematics, Cooch Behar Panchanan Barma University, Cooch Behar, WB <i>Title: On dispersion of solute in a turbulent channel flow from continuous elevated sources</i>
1:15-2:15 pm	Lunch Break
2:15 pm -3:30 pm	Deliberation by Dr. Jyotiprakas Haldar, Ex-Principal, Bangabasi Evening College, Kolkata, WB <i>Title: Vaccine Development</i>
3:30 - 4:15 pm	Interactive Session
4:15-4:30 pm	Tea Break
4:30-5:00 pm	Summary report by Rapporteurs
21/11/19	
10:30 am - 11:45 am	Deliberation by Prof (Dr.) Dilip K Debnath, Professor of Chemistry, Cooch Behar Panchanan Barma University, Cooch Behar, WB <i>Title: Chemistry and sustainability</i>

DATE & TIME	EVENT / RESOURCE PERSON / TITLE
11:45 am to 12:00 noon	Tea Break
12:00 noon - 1:15 pm	Deliberation by Dr. Samir Kumar Samanta, Associate Professor & Head, Department of Geography, ABN Seal College, Cooch Behar, WB <i>Title: Evolution of Cartography and its role in the progress of Human Civilisation</i>
1:15-2:15 pm	Lunch Break
2:15 – 2:45 pm	Deliberation by Dr. Jyotsna Das, Head, Department of Botany, Alipurduar College, Alipurduar, WB <i>Title: Introduction of Foldscope as study and research tool</i>
2:45-4:15 pm	Hands on training on Foldscopy by Dr. Jyotsna Das
4:15-4:30 pm	Tea Break
4:30 pm-5:00 pm	Rapporteurs report and discussion
22/11/19	
10:30 am - 11:45 am	Deliberation by Prof. (Dr.) Abhaya P Das, Adjunct Professor, Department of Botany, Rajiv Gandhi University, Doimukh, Itanagar, Arunachal Pradesh, India <i>Title: Conservation of Biodiversity, Climate Amelioration and Future of the Biosphere</i>
11:15am-12:00 noon	<i>Tea Break</i>
12:00 noon-1:15 pm	Deliberation by Prof (Dr.) Rajib Bandopadhyay, Professor of Botany, The University of Burdwan, Bardhaman, WB <i>Title: Southern Ocean Antarctica Expedition: All we may learn and explore</i>
1:15-2:15 pm	Lunch Break
2:15 - 3:30 pm	Deliberation by Dr. Kishore Kumar Thapa, Head, Department of Botany, Dinhata College, Cooch Behar <i>Title: Origin and Development of Tea Industry: Historical Insights and Modern Outlook</i>
3:30 -3:45 pm	<i>Tea Break</i>
3:45 -4:30 pm	Interactive Session
4:30-5:00 pm	Rapporteurs report and discussion
23/11/19	
10:30 am - 11:45 am	Deliberation by Dr. Deb Prakash Pahari, Scientific Officer (Selection Grade) [Cartographer], Department of Geography, The University of Burdwan, Bardhaman, WB <i>Title: i) Basic concept of geo-spatial technology ii) Modern Research and Development techniques using Geotechnology</i>
11:45 am-12:00 noon	Tea Break
12:00 noon-1:15 pm	<i>Hands on training using open source software by Dr. Deb Prakash Pahari</i>

DATE & TIME	EVENT / RESOURCE PERSON / TITLE
1:15-2:15 pm	Lunch Break
2:15- 4:15 pm	<i>Continuation of Hands on Training by Dr. Deb Prakash Pahari</i>
4:15-4:30 pm	Tea Break
4:30-5:00 pm	Rapporteurs report and discussion
24/11/19	
10:30 -11:45 am	Deliberation by Dr. Khsitish Ch Majumdar, Ex- Scientist G (Director Grade), Centre for Cellular & Molecular Biology (CSIR), Hyderabad, India <i>Title: An amazing story of the DNA, from double helix to CRISPR</i>
11:45 am - 12:00 noon	Tea Break
12:00 noon- 1:15 pm	Detailed report by Rapporteurs and discussion
1:15-2:15 pm	Lunch Break
2:15 - 4:30 pm	Valedictory Session

Technical Report

Inaugural Session

The workshop was formally inaugurated by Dr. Debkumar Mukherjee, Hon'ble Vice Chancellor, Coochbehar Panchanan Barma University, Patron of the workshop in presence of Dr. Bimal Kumar Saha, Officer-in-Charge, ABN Seal College, Coochbehar, Dr. Tushar Kanti Ghara, Joint Director of Public Instructions, Department of Higher Education, Govt. of West Bengal, Dr. Arnab Sen, Professor of Botany and Head & Coordinator, Department of Bioinformatics, North Bengal University, Dr. Ramdas Chatterjee, Formerly CNCI, Kolkata and other dignitaries. Dr. Binod Ch. Sharma, Organising Secretary, welcomed the gathering and Smt. Shampa Dutta, Coordinator, NAAC steering Committee, ABN Seal College proposed vote of thanks.

Technical Sessions

The NAAC assessment is a holistic, systematic and transparent experience, based on up-to-date data, which can contribute to institutional improvement. Dr. Tushar Kanti Ghara, Joint DPI and Nodal Officer (NAAC), Department of Higher Education, Government of West Bengal, in his deliberation on *"Relevance of Professional Development on Assessment and Evaluation System under Revised NAAC Framework"* shed light on the major modifications in the new NAAC guidelines. He advised teachers to inculcate thinking power to students. This will motivate the students for expression of their innovative ideas, which would lead to real advancement of education. Institutional data should be updated and uploaded regularly which may lead to wider dissemination of institution-specific policies and practices, some of which may be the best practices, for other institutions to emulate. Proper and rational utilization of institutional property would save time and money which can be utilized for the procurement of essential items. New NAAC guidelines involves extensive use electronic mode of communication, thus, Dr Ghara suggested everyone attached to educational institutions becoming sound in computer programming.

Dr. Ramdas Chatterjee, Former Head, Dept. of Tumor Virology, Chittaranjan National Cancer Institute, Kolkata in his awarenesscentric lecture on *"An insight in to oral cancer and pre-cancer with reference to North Bengal"* elaborated in detail the subject cancer. Oral cancer has became menace with the increase in the consumption of tobacco and related products like betel leaves, betel-nut etc. Prevalence of oral cancer s more in Northeastern states as well as central India. Symptoms of oral cancer are seen in mouth, tongue and cheek. Even if the cause is identified, the diagnostic approaches are not upto the mark due to lack of trained health professionals and rapid diagnostic tools. Proper identification of oral premalignant lesions supplemented by other molecular markers should reach to the every corner of country for early diagnosis of cancer.

Dr. Chatterjee also highlighted on National Cancer Registry Programme (NCRP), cancer screening programs like “Pap test” for cervical cancer, “mammography” for breast cancer which helped in reducing morbidity in these cancer types. Similar program for oral cancer is of urgent need. Classical and modern tools like gold standard inspection, staining by Toluidine blue, brush biopsy or oral CDx test, chemiluminescence, tissue fluorescence imaging (Velscope system), Identafi 3000 technology, Salivary diagnostics, DNA molecular markers, RNA molecular markers, Protein molecular markers, RNA silencing and more like these. Advancement in diagnostic tools and molecular markers are required that can meet the basic criteria of cost effective, easy accessible, non-invasive nature to detect premalignant oral lesions to develop better health service management program in developing countries like India.

Dr. Prabir Kumar Haldar, Professor of Physics and Dean (Science), Coochbehar Panchanan Barma University in his interactive deliberation on *‘Introduction to Particle Physics’* thrown some light on constituents of matter, facts from beginning to present day, four fundamental forces, interaction among them and also on different families of particles in the form of particle zoo, leptons, baryon, mesons. He also highlighted the occurrence of antiparticles, referring Dirac who interpreted this to mean that for every particle that exists there is a corresponding antiparticle, exactly matching the particle but with opposite charge. For the electron, for instance, there should be an “antielectron” called the positron identical in every way but with a positive electric charge. It was supported by theories of pair production, annihilation, quark model, quark applet. He explained the journey from big bang to current findings on particles. Progress in the recreation of baby universe, LHC (coldest place in universe) and other experiments on LHC like CMS, ALICE, ATLAS, LHC_B etc. The LHC will cause the beams to collide with each other, and then record the resulting events caused by the collision. Scientists hope that these events will tell us more about how the universe began and what it's made of. The LHC is the most ambitious and powerful particle accelerator built to date. He encouraged the participants for continuation of research on particle physics for the solution of yet to solve problems.

Professor (Dr.) Arnab Sen, Professor of Botany and Coordinator & Head, Department of Bioinformatics, University of North Bengal in his deliberation on *“Introduction to Bioinformatics with special reference to microbial genomics”* widely discussed the popular and budding research subject Bioinformatics. The ultimate goal of the subject is to enable the discovery of new biological insights as well as to create a global perspective from which unifying principles in biology can be discerned. A very good example of the successful contribution of this discipline is Human Genome Project. Various types of data that is of interest to biologist can be interpreted through bioinformatics. The perspective of bioinformatics is equivalent to the perspective of life and it includes the cell, the organism and the tree of life. The lecture also enriched the participants how bioinformatics can also be useful to decipher different issues of social

science. Basics of different bioinformatics databases like Protein Data Bank (PDB), Integrated Microbial Genomes (IMG), etc. were also discussed. The first complete genome sequence present in the IMG database in the year 1995 was one and as on 18/11/2019 it has reached to 117242. So it clearly states the growth and usefulness of the subject. The speaker also highlighted some related research work from his laboratory and gave basic information of different indexes like CBI, CAI etc. A detailed discussion regarding phylogenetic tree and its implication were also made. The talk also included an insight into the origin of life and evolution of various species across the globe. Researchers based on little infrastructural facilities can take bioinformatics as subject because it has transformed the discipline of biology from a purely lab-based science to an information-based one. Data collection and analysis unravels the wealth of biological information in reasonable time. It would enable mankind to enter the kingdom of customized medicines, and harvest environmental benefits. Database, algorithm, infrastructure are the tool makers and agriinformatics, medicoinformatics, public health informatics are the tool users. One of the Government of India initiative on agriinformatics is the site Farmer's window termed Mera Gaon Mera Desh. Similarly, public health informatics has been defined as the systematic application of information and computer science and technology to public health practice, research, and learning. It is one of the subdomains of health informatics.

Dr. Sen and his team of professionals conducted hands on training sessions on Codon and Amino acid usage using CodonW software, Phylogenetic tree construction using MEGA software and Homology modeling. The training comprised of both online and offline mode with step by step instructions. The participants were encouraged to use web available genome sequences and generate the results using preinstalled software. This training session was useful as the subject bioinformatics which has been included in the curriculum of undergraduate and postgraduate courses. Young researchers were enthusiastic for taking up this research field as the resource person assured all types of assistance.

Dr. Suman Das, Associate Professor, Department of Chemistry, Jadavpur University, WB in his worthy and highly interactive chalk and talk deliberation on *"Understanding Physical Chemistry-Some difficulties"* focused on the problems faced by College and University students in plotting different mathematical functions and their derivatives. He started with simple linear equations and then with exponential functions, trigonometrical functions and their product functions. He correlated such derivative plots with continuity and their applications in quantum mechanics. The plotting of enthalpy with temperature and hence specific heat was explained. The condition of spontaneity in terms of Gibbs-free energy variation, the phase change, effect of pressure on phase transition, plotting of p-orbitals by simply plotting the polar graph for trigonometric functions were also discussed in details.

The informative deliberation of Dr. Kajal Kumar Mondal entitled *"On dispersion of solute in a turbulent channel flow from continuous elevated sources"* commenced with the explanation on the diversity of differential equations and their solutions. He shared the

idea of alternative numerical methods like FEM, FDM, Taylor's series expansion method, forward difference method, backward difference method, central difference method etc. to solve non-linear equations. He elaborated on the goals of dispersion of particles in fluid mechanics and its utility in real life problems like controlling pollutants in liquid medium. Various types of fluid flow like laminar flow, turbulent flow and the formulation of equations of motion with appropriate boundary conditions were explained in detail. New dimensions for solving 1D convection-diffusion problem using Gelarkin's finite element method with graphical support and 2D advection-diffusion with suitable boundary conditions was explained in an elaborative way. The findings of Dr. Mondal were in accordance with the well recognized experimental values of validations. Fluids include all liquids and gases and a rather strange state of matter called plasma, an ionized gas that scientists believe accounts for 99% of the matter in the visible universe. Thus fluid mechanics is the basis of research in engineering, medicine, environmental science and others.

Dr. Jyotiprakas Haldar, Ex-Principal, Bangabasi Evening College, Kolkata, WB in his deliberation "*Vaccine: History and Development*" acquainted the house about the importance of vaccine. Dr. Haldar discussed in detail the origin of immunology as a branch of biological science through centuries and the trajectory of discoveries in this discipline to decipher the immunogenic mechanisms in the body such as types of immune cells, haematopoiesis, and cellular interaction, formation of memory cell, antibody types, perforin and granzyme mediated lysis of target cell. Finally his deliberation coalesced into different types of vaccines like polio vaccine, whole/subunit vaccine, toxoid vaccine, recombinant Hepatitis B vaccine production, recent DNA vaccine and their applications to combat the present day issues of medical sciences and urged the participants to work towards the development of vaccines to save the world population from incurable or difficult to cure diseases.

Prof (Dr.) Dilip K Debnath, Professor of Chemistry, Cooch Behar Panchanan Barma University, Cooch Behar, WB started his deliberation on "*Chemistry and Sustainability*" with a question to the audience that has the Earth's sixth mass extinction already arrived? In this context Prof. Debnath said that introduction of contaminants as well as increasing population into an environment causes instability, disorder, harm and discomfort to the ecosystem although richest countries are denying the air pollution risks. And then the term "Sustainability" comes before us. Sustainability stands on three pillars namely economic issues, social issues and environmental issues. Sustainable development means the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable chemistry is a scientific concept that seeks to improve the efficiency with which natural resources are used to meet human needs for chemical products and services. Green Chemistry is a tool in achieving sustainability. It is not a solution to all environmental problems but a fundamental approach to pollution prevention. So,

chemistry has unique contribution to sustainability by obeying fundamental 12 principles (in short: **PRODUCTIVELY**) of green chemistry which are as follows:

P- Prevent waste; **R**-Renewable materials; **O**- Omit derivatization steps; **D**- Degradable chemical products; **U**- Use safe synthetic methods; **C**- Catalytic reagents; **T**-Temperature, pressure ambient; **I**- In-process monitoring; **V**- Very low auxiliary substances; **E**- E – factor , Maximize feed in product; **L**- Low toxicity; **Y**- Yes , it's safe.

Prof. Debnath informed the participants that the economic and social issues could also help to protect the environment from different types pollution. So, each of us must take steps to protect our green earth.

A detailed insight into the origin, chronological advancement of cartography and modern day applications was discussed by **Dr. Samir Kumar Samanta** in his deliberation entitled *“Evolution of Cartography and its role in the progress of human civilization”*. Cartography involves the determination of polar, rectangular coordinates and mapping of reticules. Ancient use of cartography in surveying in building of pyramids (Egypt), irrigation of land, planning of household gardens (Babylon), settlement planning etc. During 18th century, development of modern cartographic and surveying instruments in their earliest forms e.g., theodolite, sextant etc. came into being. In modern India cartography began its journey under European leadership. Survey of India published their first topographical map in 1767. After independence, National Atlas Organisation, presently known as NATMO was established in 1957, then ISRO in 1969. Now cartography has entered digital era. Cartography has become the basis of all development and research programmes.

Dr. Jyotsna Das in her informative session on *“Introduction of Foldscope as Study and Research Tool”* highlighted on the utility of Foldscope as Microscope for everyone which is ultra-affordable microscope. Foldscope has magnification up to 2000X and resolution of 2 micron. Foldscope has given our children direct access to the world of science with minimum intervention, as field research tool, useful for microscopical diagnosis of different human diseases like malaria, African sleeping sickness, schistosomiasis etc. It is going to be an important tool for diagnosis of different plant diseases. Farmers will also learn to use in the field for disease detection.

Dr. Das began hands-on training session with demonstration of foldscope; video of foldscope assembly, then involved the participants in assembly of foldscope, slide preparation for foldscope study, observation through foldscope, capturing images of specimens by smart phone. The participants showed their eagerness to use this pocket microscope in the class as well as research work.

Prof. (Dr.) Abhaya P. Das, Adjunct Professor, Department of Botany, Rajiv Gandhi University, Doimukh, Itanagar, Arunachal Pradesh, India in his extensive deliberation on the title *“Conservation of Biodiversity, Climate Amelioration and Future of the Biosphere”* provided his insights on the present day crisis of environmental sustainability due to

population explosion and indiscriminate urbanization, socio-political aspects of the problem and its possible impact on biosphere. He strongly proposed the need for conservation in present degraded environmental condition in hills of Eastern and North Eastern India. Indiscriminate forest degradation on account of tourism, jhum cultivation, extension of cities has pushed many valuable species towards their extinction. Prof. Das also discussed man animal conflict, habitat fragmentation and socio-political boundaries, plastic pollution, Great Pacific Garbage Patch, Everest traffic, space debris, construction works on riverside and riverbed and the hindrance of the its natural flow. If we let loss of biodiversity and climate change to continue in present speed then it is assumed that in next 35 years Himalaya would be ice-free and Arctic sea would be ice free by 2040. He humbly suggested the participants to collectively begin the action to save the earth. Instant initiation and continuation of measures like corridor formation, policy integration and implementation, avoiding non biodegradable products would save further degradation of environment, biodiversity and biosphere.

Prof (Dr.) Rajib Bandopadhyay, Professor of Botany, The University of Burdwan, Bardhaman, WB, delivered a prodigious lecture on *"Southern Ocean Antarctica Expedition: All we may learn and explore."* The unique geological conditions of Southern Antarctica make it a much-congenial place for research and study. Antarctica has a vital role to play in the global oceanic and climatic systems. On account of its climatic extremes and isolation, Antarctica is easily one of the most untouched regions on earth. This makes it extremely valuable for all types of scientific research. Dr. Bandopadhyay highlighted the chronological development of sophistication of research facility by Government of India along with other countries to study the climate, weather, geology, and wildlife of this unique region. Dakshin Gangotri was the first Indian scientific research base station established in Antarctica, Maitri is second permanent research station and Bharti, India's latest research station operative since 2012. The research station is equipped to carry out research in various disciplines, such as biology, earth sciences, glaciology, atmospheric sciences, meteorology, cold region engineering, communication, human physiology, and medicine. The Indian Antarctic Programme is a multi-disciplinary, multi-institutional programme under the control of the National Centre for Antarctic and Ocean Research, Ministry of Earth Sciences, Government of India. Dr. Bandopadhyay urged the researcher participants to involve themselves in future Antarctica expeditions and contribute to beneficial sustainable science discovery.

Dr. Kishore Kumar Thapa, Department of Botany, Dinhat College, Cooch Behar, WB in his commendable address on *"Development of Tea Industry: Historical Insights and Modern Outlook"* discussed the origin, popularization, commercial plantation and its spread, current scenario in terms of cultural, research, economy of tea. Tea was initially used as medicine in ancient China, slowly evolved as a beverage, and then introduced to Japan. All tea products - green, black, white, oolong, and yellow tea, come from the same plant- *Camellia sinensis* that's native to East Asia (China and India). On morphological differences between the Assamese and Chinese varieties, botanists have long asserted a dual botanical origin for tea. Dr. Thapa also shed light on the inception and sequential development of tea industry in India. The ups and down of tea market, high

management cost, financial irregularities, political issues, scientific approaches for better tea quality and others were also intensively discussed. The speaker stressed upon the researchers to involve themselves in new research areas on tea hence to sustain its popularity vis-à-vis economy. The session was informative and interactive, as reflected from the feedback from the participants.

Dr. Deb Prakash Pahari, Scientific Officer, Department of Geography, The University of Burdwan, Bardhaman, WB started his creditable deliberation on “i) *Basic concept of geo-spatial technology* ii) *Modern Research and Development techniques using Geotechnology*” with the overall importance of geotechnology across different discipline like Geography, Environmental Science, Botany, Zoology, Physics and others. According to him Geotechnology is that part of Information Technology (IT) which deals with the information related to earth surface and works successfully with Nanotechnology and Biotechnology. Three emerging fields e.g., Geographical Information System (GIS), Remote Sensing (RS) and Global Positioning System (GPS) are included under geoinformatics.

He discussed three component of Geotechnology in details. Dr. Pahari also discussed in details about Active and Passive sensor, and Geo-stationary and Sun-synchronous satellites, Indian Satellite System. In GIS section, he focused on the processes of integration of spatial and non-spatial database. For GPS system, he noted three segments namely Space segment, Control segment and User segment where 434 satellites all over the world is controlling it, mostly run by US Govt. and Indian Govt. is also trying to develop its own system. A few case studies like study on Coastline shifting in Digha (1970-2012), Changes of Landuse/Landcover pattern of Burdwan town and study on Jambu Island between 1970s and present have been discussed with the help of geo-spatial techniques. CARTOSAT, PAN, LISS, WIFS, Electro-magnetic Radiation (EMR), True Colour Composite, standard FCC were explained in detail. Importance of UAV/Drone in agro-monitoring, filmmaking, sports, journalism, disaster management, traffic monitoring, logistic services (UBER, OLA), and in internal security have been shared with the participants. He concluded his deliberation with a nice quote “*Success is a journey, not a destination*” and encouraged the participants tremendously to use geo-spatial technology to solve our real world problems in a scientific way.

In the subsequent sessions Dr. Pahari conducted hands on training on open-source cross-platform Geographical Information System (GIS) software named QGIS or Quantum GIS. Participants basically learnt digitization, editing and analysis of geospatial data by using QGIS software. Various disciplines nowadays can use Geographical Information System for their research work, so participants of all science disciplines like Geography, Life and Physical Sciences actively participated in the session and learnt the above mentioned techniques of GIS with great enthusiasm. This session helped them to enhance their abilities in the fields of both teaching-learning and research.

Dr. Khsitish Ch Majumdar, Ex- Scientist G (Director Grade), Centre for Cellular & Molecular Biology (CSIR), Hyderabad, India delivered an storming workshop lecture on

“An amazing story of the DNA, from double helix to CRISPR.” Dr. Majumdar began the lecture with the interesting facts observed during the journey from the elucidation of DNA structure through DNA manipulation to CRISPR. It is one of the major findings of this decade. CRISPR technology is a simple yet powerful tool for editing genomes as it allows researchers to easily alter DNA sequences and modify gene function. Its many potential applications include correcting genetic defects, treating and preventing the spread of diseases and improving crops. However, its promise also raises ethical concerns. This technology was adapted from the natural defense mechanisms of bacteria and archaea (the domain of single-celled microorganisms).

Valedictory Session

Dr. Binod Ch. Sharma, Organising Secretary presented concluding remarks. The formal vote of thanks on behalf of the organizing committee was proposed by Dr. Writuparna Chakraborty, Convener, Seminar and Research Committee. Dr. Bimal Kumar Saha, Officer-in-Charge, ABN Seal College formally concluded the workshop.

Conclusion

The workshop was basically designed to bring the teachers and researchers of Higher Educational Institutions in ABN Seal College, Coochbehar on a single platform and share the information on teaching-cum-research strategies needed for effective professional development. The workshop covered various topics in the fields of science and geography and participants were equipped with a deep understanding of the topics covered.

Participants took keen interest in practical work to acquire hands-on experience in the use of foldscope and handling of softwares on Bioinformatics and Geoinformatics. The weeklong series of deliberations provided take home ideas on innovative teaching-learning and research ideas which may deal with local social, economical and ecological issues. Participants actively took part in interactions during the workshop which helped themselves to build up confidence level in the field of their discipline. Selected participants provided feedback about the workshop. A good number of faculty members and students also witnessed the sessions of their interest and actively participated in interactive sessions. The resource persons motivated the participants to generate and disseminate innovative teaching and research ideas among the stakeholders.



Fig 1: Inaugural Session address by Prof. Deb Kumar Mukhopadhyay, Hon'ble Vice Chancellor, CoochbeharPanchananBarma University (Patron of the Workshop).

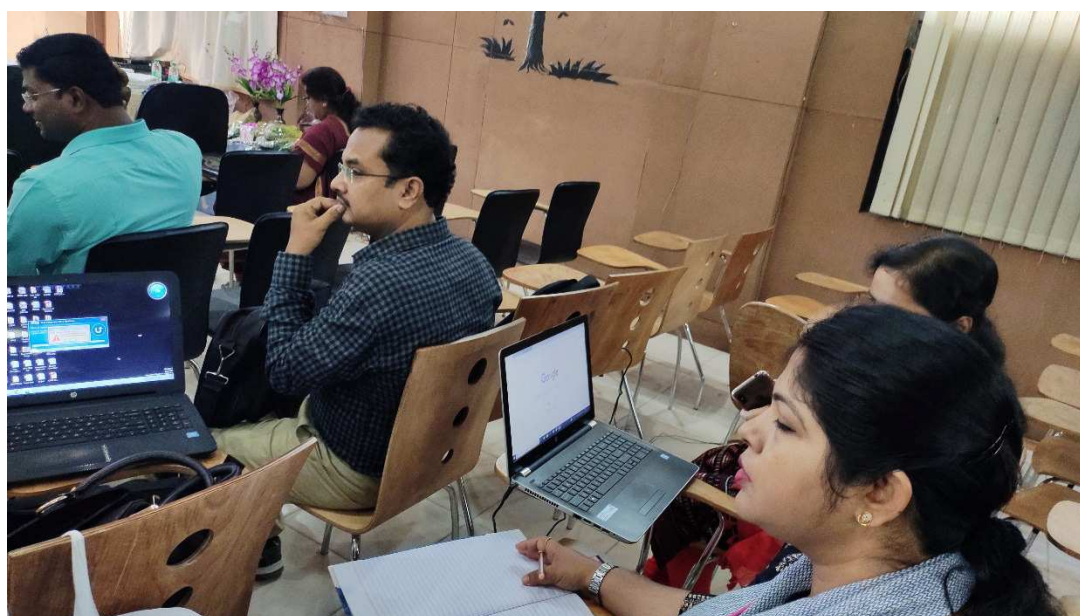


Fig 2: Training Session on Bioinformatics



Fig 3: Hands on Training on Foldscopy by Dr. Jyotsna Das, Department of Botany, Alipurduar College, Alipurduar, West Bengal.



Fig 4: Technical Session Deliberation by Dr. Rajib Bandopadhyay, Professor & Head, Department of Botany, Burdwan University, Burdwan, West Bengal



Fig 5: Technical Session address by Dr. Kshitish Ch Majumdar, Ex- Scientist G (Director Grade), Centre for Cellular & Molecular Biology (CSIR), Hyderabad, India



Fig 6: Hands on Training session on Geoinformatics Dr. Deb Prakash Pahari, Scientific Officer (Selection Grade) [Cartographer], Department of Geography, The University of Burdwan, Bardhaman, WB

Proceedings of the
National Seminar on

“AN INTERTEMPORAL DISCOURSE UPON THE SOCIETY, CULTURE, POLITY AND ECONOMY OF NORTH-EASTERN AND EASTERN INDIA”

Sponsored by

Indian Council of Social Science Research, New Delhi

[Vide; sanction order: F. No. C5/NS/022/NIS/2019-20]



Organized by

ACHARYA BROJENDRA NATH SEAL COLLEGE, COOCH BEHAR (WB), INDIA

[Accredited by NAAC with Grade “A”]

Dated: 27th and 28th February, 2020

FOREWORD

Acharya Brojendra Nath Seal College is a premier Higher Educational Institution in North Bengal and North Eastern Region of India. It has been playing a major role in the field of collegiate education and the upliftment of the society and culture of North Bengal and North-East India. In the year 1888, His Highness Maharaja Nripendra Narayan Bhup Bahadur of “CoochBehar Princely State” founded the Noble Institution-VICTORIA COLLEGE. The date of its birth is 15th of June 1888. In course of its more than one century old life time, it has reached at a position of distinguished Centre of learning not in the the Indian subcontinent but also for the world.

North-Eastern and Eastern India are two naturally, environmentally and socio-ethnographically diversified regions of the Indian Sub-Continent. Alike other regions, from time immemorial these two regions have immense role and contributions for the growth and development of this civilization in the spheres of its society, culture, polity and economy. But about their roles and contributions, there are not seen significant systematic, methodical, intensive and extensive studies upon the said spheres till today. Viewing such a situation, the present Seminar entitled “*An Inter-temporal Discourse upon the Society, Culture, Polity and Economy of North-Eastern and Eastern India*” is being proposed to be held for making a tiny effort to begin a systematic, intensive, extensive, methodical and intertemporal discourse upon the society, culture, polity etc. with the utilization of minimum finance, time and other resources. I look forward to see this academic endeavour as a concrete step that may explore new horizons in the sphere of knowledge as well as augment the fraternity, integrity, nationality and other allied virtues among the people of these two regions in particular and all the regions of India in general.

The programme is being conducted with partial financial assistance from the ICSSR, New Delhi. I am glad that the faculty of Humanities and Social Sciences is also bringing out a Proceedings of the Seminar that includes invited talks of the resource persons and a few collected contributions of the participants. My sincere thanks and appreciations are due to the Coordinator, Organising Secretary and the members of the faculty of Humanities and Social Sciences for taking great efforts in organizing this programme and making it a grand success.

Dr. Bimal Kumar Saha

Officer-in-Charge

A.B.N Seal College, Cooch Behar (WB)

PREFACE

Organizing a National Seminar which is meant to divulge the magnificent mysteries of our national bondage by dealing thoroughly with the geo-political Centre-periphery reciprocities, is a matter of pride and utmost satisfaction for any higher education institution that strives to shoulder the responsibility of disseminating “man making education” in many ways. Two-day National Seminar on “*An Inter-temporal Discourse upon the Society, Culture, Polity and Economy of North-Eastern and Eastern India*” organized by the Faculty of Humanities and Social Science, ABN Seal College, Cooch Behar is designed to be of that kind. In its own way, it would provide a nation-wide platform to celebrate Inter and Intra-regional fraternity and cooperation. Cooperation is the keyword and that is the life of this kind for intellectual expansionism. Academicians, independent researchers, research scholars, students and academic administrators from different parts of our country have expressed their desire to collaborate the event according to their various capacities. This token of intellectual service has been bolstered up with the sanctions and financial assistance of Indian Council of Social Science Research (ICSSR), New Delhi, a prestigious Academic body of National repute under Ministry of Human Resource Development, Govt. of India. Moreover, without tireless efforts and mutual assistances of Teaching and Non-Teaching members of ABN Seal College this moment of celebration would not have come into reality. I, personally, would like to express my sincerest gratitude to the college administration for entrusting me with the task of the convener. Following pages will offer a menu of the academic treat we have promised to offer.

Dr. Dibyatanu Dasgupta

Convener

National Seminar Committee

Human and Social Science

A.B.N. Seal College, Cooch Behar

TABLE OF CONTENTS

Sl. Nos.	Title	Page No(s).
1.	National Seminar Organizing Committee	05
2.	Theme of the Seminar(with write-up on seminar topic and sub-themes)	06-07
3.	Programme Schedule (with list of actual participants, exact titles and presenters of each session)	08-12
4.	Lecture Series (including keynote address)	13-18
a.	Keynote address	13
b.	Plenary Lecture I	14
c.	Plenary Lecture II	15
d.	Plenary Lecture III	16
e.	Plenary Lecture IV	17
f.	Plenary Lecture V	18
6.	Contributions of Participants(Selected abstract papers)	19-28
7.	Report of the National Seminar	29
8.	Recommendations/Contribution of the Seminar	30
9.	Photo Gallery	31

Organising Committee for the National Seminar

President: Dr. Bimal Kumar Saha

Vice-President: Dr. Sanghamitra Dasgupta

Director of the Seminar: Dr. Debasish Mallik

Convener: Dr. Dibyatanu Dasgupta

Organising Secretary: Sri Partha Sarathi Aich

Jt. Organising Secretary:

Dr. Rudrani Bhattacharya

Dr. Sutapa Chakraborty

Sri Animesh Mandol

Cashier/Treasurer: Sri Dilip Kumar Das

Members:

Dr. Samir kumar Samanta

Sri Samir Kumar Samanta

Smt. Suchitra Ray

Sri Arup Das

Dr. Krishna Nandi

Smt. Sudeshna Mukherjee

Theme of the National Seminar

“An Inter-Temporal Discourse upon the Society, Culture, Polity and Economy of North-Eastern and Eastern India”.

Concept Note:-

North-Eastern India consists of eight sister-states namely-Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland, Sikkim, and Tripura. On the other hand, Eastern-India is composed of states namely, West Bengal, Bihar, Orissa and Jharkhand. These two regions of India are notably possessing multifaceted character in terms of their physiography, environment, society, ethnography and related other aspects. Hence, these two regions seem to be a multi-rack museum in the Indian sub-continent.

Alike other regions, from time immemorial Eastern and North-Eastern India represent the confluence of great traditions like Indian Culture and Mongoloid Culture. This region is adobe of various class, caste and tribes enriching with various cultural diversities. It is also famous for its unique handicrafts, martial arts, enriched bio-diversity and scenic beauty. Each state has its own features, distinct geographical details and various communities with different rituals and culture, own written text, oral literature consisting of songs and fables. This unique region is vast reservoir of natural resources like oil and gas, mineral deposits, forest and horticultural resources as well as immense hydro-electric potential. But there is also a dark side of this region where people are witnessing conflicts and myriad issues related to their homeland. Since independence, this region stands witness to wide varieties of conflicts like interethnic conflicts, conflict over natural resources, native-migrant conflicts and border conflicts between the states of the region substantially overlapping into each other. Despite the abundance of resources, this region has lagged behind many Indian states in vital indicators of development. The lack of economic opportunity has given rise to political crisis which played a role in exacerbating the derogative economic situation and social condition, in general.

Viewing such a situation, there are not seen significant systematic, methodical, intensive and extensive studies upon the said spheres till today. The proposed Seminar entitled “*An Inter-Temporal Discourse upon the Society, Culture, Polity and Economy of North-Eastern and Eastern India*” is being proposed to be held for making a tiny effort to begin a systematic, intensive, extensive, methodical and an inter-temporal discourse upon the society, culture, polity and economy with the utilization of minimum finance, time and other resources.

****The Major and Minor sub-themes of the Seminar:-**

- 1) *Inter-temporal discourse upon the society:-*

a) Structure of the society in various geographical set-up, formation of the society and structural uniqueness in various geo-political units of these two regions, intertemporal changes from ancient to modern times of the social uniqueness in the said areas

b) Ethnic features and its intertemporal changes in every geo-political units alongwith the discussions relating to the intertemporal changes of class, caste, taboos etc. in the aforesaid geo-political locality

2) *Inter-temporal discourse upon Culture:-*

a) Intertemporal discourse upon language and literature of various socio-ethnic groups of people inhabiting in these two regions from time immemorial.

b) Intertemporal changes in the livelihood patterns of various socio-ethnic groups as well as changes in the “Dharma” and ways of worships.

c) History and pre-history of religious negotiations between Eastern and North-Eastern regions over time and other related issues.

d) Intertemporal variations of ceremonial issues relating to birth, death, marriage and other aspects of life of these two regions.

e) Intertemporal discourse upon the development of traditional and modern education, social and psychological issues as developed over time among the individuals, families of various class, communities and groups.

3) *Inter-temporal discourse upon Polity:-*

a) The discussion of the political life of the people of these two regions in the period of pre-state formation and after the formation of state ranging from monarchic, feudalistic, colonial and present democratic systems in comparative manner and so-on.

b) Intertemporal variations of political sensations and consciousness among the people of these two regions.

c) Extent of consciousness among the people of various groups, castes etc. of these two regions about national integrity, fraternity, brotherhood and obedience towards the modern Indian constitutional obligation and practice.

4) *Inter-temporal discourse upon Economy:-*

a) Changes over time the economic aspects of the rural and urban areas inclusive of land settlement systems, land utilization patterns and so-on.

b) Tax and Revenue Systems and changes over time under different statehood regimes.

c) Past and Present infrastructural development trend, consumption and savings habits, production patterns as well as other related issues overtime in the micro and macro units of these two geopolitical units.

Programme Schedule

Of

Two-Day National Seminar on “An Inter-temporal Discourse upon the Society, Culture, Polity and Economy of the North-Eastern and Eastern India”

27th and 28th February, 2020

Organized by Faculty of Humanities and Social Sciences

A.B.N. Seal College, Cooch Behar

Day 1 : 27.02.2020

- **08.30 AM – 09.30 AM** Registration of Participants, Shatavisha Building (Ground Floor)

Inaugural Session

09:30 AM- 10:30 AM

Venue: Vidyasagar Sabhagriha

- **09:30 AM – 09:50 AM** :Inauguration of the seminar by lighting the lamp and garlanding the images of Maharaja Nripendranarayan and Maharani Sunity Devi and felicitation of the guests
- **09:50 AM – 10:10 AM** : Welcome address by The Officer-in-Charge, A.B.N. Seal College, Cooch Behar
- **10:10 AM – 10:20 AM:** Address by the Director, National Seminar Organizing Committee

Keynote Address

10:20 AM – 11:00 AM

Professor Ananda Gopal Ghosh, Eminent Historian, Retired Professor, Department of History, University of North Bengal, Darjeeling

Tea Break

11:00 AM - 11:10 AM

- **11:10 AM – 12:00 NOON** : **Plenary Lecture I** : Dr. Tarun Kumar Bahadur, Department of Economics, Bongaigaon College, Bongaigaon, Assam
- **12:00 AM – 01:00 NOON** : **Plenary Lecture II** : Dr. Bimal Kumar Saha, Officer-in-Charge, A.B.N. Seal College, Cooch Behar, WB

Lunch Break

01:00 PM – 02:00 PM

Parallel Technical Session I: TS1A

02:00 PM – 4:30 PM

Chair: Dr. Prajnaparamita Sarkar

Venue: Room No. P- 105 (Ground Floor, Prakriti Building)

‘Inter-temporal Diversities: Different Problematic Issues from Eastern and North Eastern India’

- Dr. Sanjeev Kumar Mishra ‘An Exploration unto the Quintessence of Christianity in the North East States’
- Rana Mitra, ‘Seasonal Rural Out-migration in Cooch Behar District: Causes and Consequences -An Analysis on Perspective of Social Communities’
- Sajib Barman, ‘Female Goddess of the Rajbangshis of North Bengal’
- Sera Roy & Dr. Gopal Sharma, ‘Ethnography of Rajbangshi Community in North Bengal: A Study of Koch Rajbangshi of North Bengal’
- Dr. Supriya Biswas, ‘Dwarkanath Ganguly: A Study on His Role of Women Emancipation in Colonial Bengal’
- Dr. Bappa Sarkar & Dr. Nazrul Islam, ‘A Comparative Study of Socio-economic Status of Migrant and Non-migrant Residents of a Village in Cooch Behar District, West Bengal’
- Md. Abdus Sattar, ‘Social, Economic and Ceremonial Issues in the Hajong Community of Assam’
- Chirantani Das, ‘Examining the Early urban Experience Pundravardhana, Ancient North Bengal’
- Riki Chakraborty, ‘Dharma the Way to Worship Divine’

Parallel Technical Session II: TS1B

02:00 PM – 04:30 PM

Chair: **Dr. Tarun Kumar Bahadur**

Venue: Vidyasagar Sabhagriha

‘ Rethinking North Eastern India: Society, Politics, Economy and Culture’

- Rajeeb Bora, ‘An Inter-temporal Discourse upon Substantial Production of North East India’
- Roopleena Banerjee, ‘ Egalitarianism and the Social Status of Women in Khasi Society of Meghalaya’
- Masoom Islam, ‘Disclosing the Double Discourses of Terror and Tradition in the North East: A Selective Study of Robin S. Ngangom’s Poetry’
- Dr. Goutam Sarkar, ‘Impact of Assam Movement on State Politics of Assam’
- Manojit Das & Soumendra Prasad Saha, ‘Statehood Movements of Erstwhile Manipur from 1949 to 1972’
- Gita Das, ‘A Study on the Social, Cultural, Political and Economic Life in India, Special Reference to the North East India’

- Priyashikha Rai , ‘Conflict in North-East India And Government Initiatives in Peace-Making Process’
- Dr. Debabrata Barai, ‘Influence of Ramayana in Traditional Marriage Folk Songs, with Special Reference to Assam and West Bengal’
- Madhurima Chakraborty, ‘Comparative Discussion on the Cultures of North Eastern and Eastern India’
- Md. Ibrahim Hussain Sheikh, ‘Language and Literature of the Peoples of Char Villagers of the River Brahmaputra in Dhubri District of Assam: A Brief Discussion’

Parallel Technical Session III: TS1C

02:00 PM – 04:30 PM

Chair: Dr. Samir Kumar Samanta

Venue: P- 202 (1st Floor, Prakriti Building)

‘Cooch Behar and Its Vicinity : Knowing the Populace’

- Debasish Dey, ‘Boats, Boat Builders and Boat Building Tradition of Rosikbil in Cooch Behar (West Bengal)’
- Manomita Sarkar, ‘Livelihood Promotion of Rural Women through Self Help Group (SHG) with Special Reference to Cooch Behar’
- Dr. Jaysagar Wary & Jangila Mushahary, ‘Traditional Media in the Marriage System of the Bodos’
- Biswajit Barman, ‘Changing Patterns of Land Boundary and Its Effect: A Study of Dinhata Sub-division’s Enclaves in Cooch Behar District’
- Gourango Chandra Roy, ‘Transmission of Language in Jalpaiguri District during the Colonial and Post-colonial Period 19th and 20th Century: A Historical Overview’
- Pallab Debnath & Arup Kumar Saha, ‘Types of Street and Fast Food Shops in Alipurduar town : Food with Growing Population’
- Joydeb Sarkar, ‘The Scarcity of Food and Works of the Rural People of Cooch Behar: An Overview’
- Passang Doma Bhutia, ‘Food Culture: The Role of Local Food in Rural Tourism in Darjeeling Hill Areas’

Day 2 : 28.02.2020

Venue : Vidyasagar Sabhagriha

- **10:00 AM – 10:10 AM** Welcoming of Guests by The Director, National Seminar,

Humanities and Social Sciences, 2020

- **10:10 AM – 10:50 AM :Plenary Lecture III:Dr. Jayita Sengupta**, Department of English, Cooch Behar Panchanan Barma University, Cooch Behar
- **10:50 AM – 11:30 AM :** **Plenary Lecture IV:Dr. Samar Sinha**, Assistant Professor, Department of Nepali & Coordinator, Centre for Endangered Languages, Sikkim University, Gangtok, Sikkim

Tea Break

11:30 AM – 11:45 Noon

Technical Session III: TS2A

11:45 AM – 01:00 PM

Chair: Dr. Samar Sinha

‘Reconsidering Life, Literature and Legacies of Eastern and North East India: Myriad Lenses’

- Niladri Tikadar , ‘The Contribution of The Namasudras To The Growth of Dalit Literature in Bengali’
- Dr. Dipsikha Acharya , ‘A Colloquy between Man and Nature: Alternative Approach of Looking into the Early Medieval Period of North-Eastern Odisha’
- Antarleena Bhattacharjee, Origin and Development of the Aniconic Shakti cult in Koch-Kamta region: Special emphasis upon the ‘Trinity of Goddess’
- Saikat Guha, ‘The Margin Writes Back: Centralism, Parochialism and the Contemporary Poetry of North East India’
- Malabika Sinha, ‘Nature and Literature: Eco-critical Reading of Selected Poems of Mamang Dai’
- Prosenjit Shil, Leftist Movement in North Bengal: A Study of Charu Majumdar and Kanu Sanyal
- Bikash Deb, ‘Ethno-Cultural Tradition of The Rajbanshi people of Cooch Behar: Special Reference to Agriculture’

Lunch Break

01:00 PM – 02:00 PM

- **02:00 Noon – 02:40 PMPlenary Lecture V:Dr. Anita Bagchi**, Department of History, University of North Bengal, West Bengal.

Technical Session III: TS2B

02:40 PM – 04:30 PM

Venue: Vidyasagar Sabhagriha

Special Session for Students

Chair: Dr. Samar Sinha

Adjudicators: Dr. Debasis Mallik & Dr. Sanghamitra Dasgupta

- Rupon Bhowmick, ‘An Inter-temporal Discourse of Interdependency Among Northeast States of India’
- Kaushik Paul And Abhishek Podder , ‘Music of the Oppressed: the Cultural Politics and Indentured Labours in the Tea Gardens of Assam’
- Md Firdous Rahaman , ‘Ethnicity and Identity Movement in West Bengal: A Brief Study on Gorkhaland Movement’
- Swapan Barman, ‘Indigenous Games and Sports in North Bengal : A Study with Special Reference to Cooch Behar District’
- Meeraj Hoque, ‘Sexual Dissidence and Cultural Tradition: A Study of Rajbangshi Folk: Practices and Ritualistic Artifacts’
- Pijush Kumar Das, ‘Social Transmission of Rajbangshi Community’
- Pintu Barman, ‘Autonomous District Councils in North East India: Exploring Major Issues and Challenges’

Valedictory Session

04:30 PM – 05:00 PM

- **04:30 PM – 04:40 PM** Welcoming the audience by the Director, National Seminar, Humanities and Social Sciences, ABNSC, Cooch Behar
- **04:40 PM – 04:45 PM** Special Prize-giving Ceremony for the Best Paper Presentation for Students by the Officer-in-Charge, ABN Seal College, Cooch Behar
- **04:45 P.M – 05:00 P.M** Address by Dr. Samar Sinha, Department of Nepali & Coordinator, Centre for Endangered Languages, Sikkim University, Gangtok, Sikkim
- **05:00 PM – 05:15 PM** Vote of thanks by the Organizing Secretary, National Seminar, Humanities and Social Sciences, 2020
- **05:15 PM – 05:30 PM** Concluding note and official declaration of the closing of the Seminar by The Officer-in-Charge, ABN Seal College, Cooch Behar

Lecture Series (including keynote)

Unbalanced Regional Development in Indian History throughout the ages – from the pre-colonial to the post-colonial Phases in the context of an Inter-temporal Discourse.

Keynote Address by Prof.(Retd.) Ananada Gopal Ghosh
Department of History
University of North Bengal, WB
Dist: Darjeeling

The essence of keynote is to highlight the issue of the unbalanced regional development throughout the ages. The focal point is undoubtedly complex and sensitive one. Not only the eastern India but also the North-Eastern India is really a most volatile region of the Indian Republic. Temporal development is very much connected with identity as well as the other subsidiary issues. The Eastern and North-Eastern India is rich in natural wealth but the development index is poor. Honestly speaking the development and identity are not made for each other. It is in this backdrop I will examine the issue obviously from the historical perspective.

The basic pattern of temporal development issue in Indian history throughout ages except the “*Maurya*” and “*Gupta*” imperial phases was uneven and unbalanced. This unevenness, despite the successive governments of the Post-Independent India is very much visible even today in the different regions of the country. India’s experiences of the regional development is unique and unprecedented in the annals of the development of the world. India’s diversity is unparalleled and it can’t be compared with any country of the world. The unbalanced temporal development is a chronic problem in most part of India but the case of the North-East India and Northern most part of Sub-Himalayan West Bengal is proverbial. To tackle the problem of the temporal development the Union Government of India has set-up a separate Secretariat for the North-eastern states i.e.; comprised by the eight states of Indian Republic – a hard-proof of the unbalanced regional temporal development. The examples can be multiplied but for the sake of the constructive discussion, I will confine the whole analysis in the North-East India particularly.

History suggest us that the unbalanced regional temporal development is the direct offshoot of the colonial-administrative and economic system. Accepting this dictum, the case of India and Indonesia is unique one. We found close similarity between the unbalanced temporal regional development of the Dutch East Indies i.e.; Indonesia and the British East Indies i.e.; India.

AN INTER-TEMPORAL DISCOURSE UPON THE SOCIETY, CULTURE, POLITY AND ECONOMY OF THE NORTH EASTERN AND EASTERN INDIA

Dr. T. K. Bahadur
Associate Professor & HoD,
Department of Economics
Coordinator, IQAC
Bongaigaon College
Bongaigaon, Assam

Abstract: Northeast India happens to be geographical component of Eastern India, connected through a narrow corridor, popularly known as ‘Chicken Neck’. The region is enriched with huge potentials of exploring the natural and environmental resources for socio-economic development. The region is blessed with the inhabitation of multiple ethnicities which have appealing history to share their cultural memories. However, the setback in the process of exposing the region on the national platform is due to prolonged tensions among tribes and other communities, confronting for space and identity, which is further aggravated by immigrant forces. The progress of the region is crippled due to separatist and militant issues. The notion of being separated from the mainland of India in terms of sharing the socio-political benefits and privileges has accentuated a political drama of secessionism and separatism. The paper intends to focus on the political economy of North East India by enveloping the recent policies enacted for economic development of this area.

Poverty of Undivided Bihar during the 19th-20th Century and at Present- A Simplistic View

Dr Bimal Kumar Saha
Officer-in-Charge
A.B.N Seal College
Cooch Behar-736101
West Bengal

Abstract: This paper aims to disclose broadly the prospect of economic structure of society in Bihar during the 19th-20th Century along with its present nature. At the same time it gives also endeavor to identify the contribution of the poor people of Bihar in West Bengal during the same period. Simultaneously, with it this presentation has also given effort to manifest the present economic structure and the nature of poverty in Bihar at present as well as identifying the complementary forces behind the same. The study is based upon the qualitative data and information. All of these are collected from the primary and secondary sources. On the basis of data collected this presentation finds broadly the 19th-20th century economic structure of the society in Bihar which is composed of two classes: Rich and Poor. Moreover, the prospect of poverty at time period in Bihar was horrible. In the formal and informal sectors in the economy of West Bengal poor people of Bihar had immense contribution at that time span. At present, the poor people at Bihar have been escaped from the poverty to a notable extent. Meanwhile there has been developing the lower middle-class community at that place. This is due to the impact of the various developmental schemes and programmes of the Government of India. It is expected that in the coming near future Bihar will be out of the danger of poverty to a critical extent.

Of Tibetan Buddhism: Sikkim and Darjeeling Hills

Prof. Jayita Sengupta
Dept of English (HoD)
Panchanan Barma University
CoochBehar, WB

Abstract: Tibetan Buddhism in Eastern Himalayas cannot be studied in isolation from the country's neighbours. Nor can one understand the complexity of the religious concept, severing it from its historical, socio-political and cultural nexus. The Fourteenth Dalai Lama along with other Tibetan Buddhists claims that the religion has a wide range of Buddhist philosophical and cultural traditions from the basic *pratimoksa* precepts to the most secret Vajrayana mysticism. Central Tibet, where Tibetan Buddhism flourished in the 6th century CE, inherited a wide range of philosophical and cultural trappings of Buddha's teachings which originated in India and spread to Central Asia and China. This presentation would discuss briefly the beliefs, myths, rituals and practices associated with Tantric Buddhism in Sikkim Himalayas when it was introduced there in the 8th century CE. It will also attempt to consider certain rituals associated with Tibetan Buddhism in the neighbouring countries like Bhutan and Nepal to study the cultural complexity of the Buddhist philosophy in practice and in variegated aesthetics.

North Bengal and Sikkim: a study in language endangerment

Dr. Samar Sinha
Assistant Professor & Coordinator
Department of Nepali &
Centre for Endangered Languages
Sikkim University

Abstract

Language not only facilitates communication and define our identity, but also retell our past and foresee our future. It enables the people to participate in governance, ensure human rights, education, cultural continuity, and other requisites that are crucial for human survival. Therefore, linguistic diversity is one of the prerequisite conditions for building inclusive knowledge societies as envisioned in the UN's 2030 Agenda for Sustainable Development. However, the world's linguistic diversity is vanishing fast leading to language endangerment as a massive, rapid, global epidemic. Metaphorically speaking, the *terminal language* is most often undescribed/underdescribed language belonging to the indigenous communities, who are marginalised in various forms throughout history.

India's share in the UNESCO's endangered language list is the largest with 196 endangered languages particularly concentrated in the Eastern Himalaya including Sikkim and North Bengal, which has more than 40 endangered languages. To study the distribution of global linguistic diversity, to assess the threat of extinction, and to prioritise research, language hotspot model identifies Eastern Himalaya as one of the hotspots. In addition to it, the Census of India 2011 identifies communities with less than 10,000 speakers each or “were not identifiable on the basis of the linguistic information available” have been classified under a particular language as “Others.” Such categorisation suggests that these indigenous endangered languages are a case of language denialism. It also firmly shows that “availability of linguistic information” becomes a tool to understand and provide comprehensive evidence leading to appropriate national policies to safeguard these languages.

In the background of the UN resolution proclaiming 2019 the International Year of Indigenous Languages, language endangerment, the linguistics scenario revealed in the language Census of India 2011, and the Eastern Himalayas as a linguistic hotspot, it reiterates the 2016 UN resolution stating the urgent need to document, promote and revitalise the endangered indigenous languages of the said region.

This paper argues that the Eastern Himalayas with its depleting diversities require language documentation as an essential basis to address the situation, and proposes that a coordinated effort

towards vitalising linguistic ecology is a prerequisite for a healthy biocultural diversity. Further, the paper advocates that language endangerment needs a social policy to maintain language diversity considering language endangerment as a public service akin to public health, public transport, etc.

Reconstruction of Utilitarian Science and Alternative Sources: Focus on Early Eastern India

Dr. Anita Bagchi,
Retired Professor of History (Retired),
Department of History, University of North Bengal
Darjeeling

Abstract:

On political or socio-economic history of India books and articles are coming out in steady flow. A good number of books on religious and descriptive art and architecture of early India is addressed. But for various reasons, the discipline of History of science and technology is still in its formative stage. Publications in this area are relatively small. The study of ancient and medieval Indian scientific activities involved material difficulties because of absence of proficiency in languages that prevailed in India in past. Still it was not a totally hopeless condition and the Asiatic Society firmly propagated its observation that despite the continuity of religious and spiritual concepts in India, science was not ignored or relegated to the limbo. When we closely look into the basic human ends as conceived in the Hindu tradition, Purusharthas- dharma, artha, kama and moksha, it is not difficult to realise that this broad spectrum values contain both material and spiritual elements in it (D.P. Chatto, R.Kumar p.2)1996). Similarly, it is not easy to draw a sharp line of division between material and speculative elements.

In the Indian tradition knowledge has been broadly divided into two categories- 'aparavidya'- empirical or mundane knowledge and 'paravidya' i.e. spiritual knowledge. The former catered to the material needs of the people in this mundane world. When we speak of Neolithic Revolution it implies a major change in the technique of food production which gave men control over his environment and saved him from the precarious state of uncertainty of hunting and gathering. Instead of collecting wild grains people now began to control their food supply by cultivating plants. 'Like all great transformations, it was not a single act but a process including numerous observations and inventions, all subservient to the essential achievement – the cultivation of seed-giving grasses' (Randhawa et al. 1969.281).

Here in this paper, an attempt is to be made to find out a few important texts and to highlight the inner information there in to reveal that the people of the country never ceased to develop their knowledge in different segments for their better living and that created a store of empirical knowledge. So it may be inferred that major concern of history of sciences is to establish the existence of sciences rather proto sciences or elementary knowledge in natural philosophy in the past. Bernal's observation will help us to get at the right understanding. He says, 'Science does not appear in the first place in a recognizable form... it is necessary to search for its hidden sources in the histories of human arts and institutions' (Science in History, 1969, p. 61).

Contributions of Participants(some selected abstracts)

- **The Socio-cultural text of Mediaeval Greater Bengal and Assam in the light of “ Madhu Sadhukhan”**

Dr. Debasis Mallik
Associate Professor
Dept. of Bengali
A B N Seal College
Cooch Behar, WB

Abstract: “Madhu Sadhukhan” is a Bengali short novel written by Amiyabhushan Majumdar, short in size but with great significance, it seems to be one of the masterpieces of the eminent novelist. There are so many river-centric novels in the history of Bengali novel. “Madhu Sadhukhan” is not only an addition to the heap, it has certain differences from the popular, well known Bengali river-centric novels. Usually, the creation of a river-centric novel is based on a single river or the surroundings of the river. In a clear sense, it tells the tale of the entire land and the struggle of the life of the inhabitants. On the Contrary, this very novel “Madhu Sadhukhan” is an account of a journey. The Protagonist Madhu is a ‘Saukar’, merchant on his business trip, crosses several streams like the Ganga, the Bhairab, the Padma, the Brahmaputra, the Dharla, the Torsha, the Kaljani, The Arhialkhan etc, travels by boat the vast region from South Bengal to North Bengal and Assam. The narration be created on the basis of the thought and action of the Protagonist Madhu. He is the possessor of the history and myth, the tale of power game, of the illicit love and post marital affairs in diverse colour of the entire region, he leaves behind these tales, his strange behaviour, his view about Life and Death, expresses his own philosophy of Life in where the consciousness of Time comes into contact with the thought of Death.

- **Egalitarianism and the Social status of women in the Khasi society of Meghalaya**

Roopleena Banerjee
Vice Principal and Assistant Professor (Political Science)
Dr. B. R. Ambedkar Satabarshiki Mahavidyalaya, Helencha
Affiliated to the West Bengal State University (Barasat)
West Bengal

Abstract: The Khasis are a tribal community inhabiting the state of Meghalaya in Northeast India. The word Khasi encompasses five sub-tribes or ethnic groups who are categorized as *Khynriam*, *War*, *Bhoi*, *Lynngam*, *Jaintia*. In recognition of their common ancestry and oneness as a people, the various ethnos collectively define themselves as children of the Hynniew Trep, referring to seven ancestral families who are believed to have founded the Khasi race on earth. Though they share common physiological traits with many of the other tribes inhabiting the region, their non-patriarchal family and kinship arrangement and Austro-Asiatic language set the Khasis and the Garos apart from the rest of the population in the region.

The Khasi society exists amidst very strong patriarchal mainstream Indian society and Christianity. Yet this non-patriarchal structure has survived the storms and stresses which often tried to disrupt and also challenge its existence. The Khasis are a non-hierarchical society which is based on the principle of egalitarianism where all members have a joint responsibility of running the society. In other words, they are an integral part of the community as well as their family, neighbours and friends. Egalitarian societies do not have a system of control and domination of one group over another. People who inhabit these societies possess a sense of internal unity and egalitarian outlook. Tribal societies anywhere in India, particularly in the Northeast are very different from mainstream societies. The distinct identities of a tribal society get diffused in the collective identities of the mainstream societies and are analysed as such. This leads to difficulty in recognizing and appreciating the characteristics of the tribal society in their own right by the mainstream academia. The purpose of this paper is to understand the tenets of egalitarianism prevalent in the Khasi society and also the social status of the Khasi women in order to understand the interrelationship between the two sexes therein and the gender paradigm in the light of these egalitarian practices. The paper also is an attempt to open up new ways in studying non – hierarchical societies, especially in the context of gender / feminist studies.

- **DHARMA THE WAY TO WORSHIP DIVINE**

Riki Chakraborty
Assistant. Professor
Dept. of Philosophy
University B.T & Evening College
Cooch Behar

Abstract: Every human beings are supposed to achieve their goal (moksa). The different stages of life of a human being seeks to fulfill the four essentials, that are dharma, artha, kama and moksa. Purusarthas are the inherent value of the universe. Throughout the life an individual longs for some values (dharma) by attaining purusarthas, which can shapes an individual to close to the inherent value of the universe. The purusartha ‘dharma’ eventually heads us to inner moksa.

For the spiritual practice of a human being dharma is the right path. By dharma we can understood artha as a purusartha. If we take a close look towards dharma (purusartha), it means virtue, righteousness, custom etc. to justice one must have some laws, these laws are dharma. Every community have some religious beliefs which are close to dharma as well as it known as religion, where as dharma and religion is not unilateral but relative.

My present paper deals with the practice of dharma to personalise the divine. So dharma is the way by which a human being may tuned with the reality and leads in to a heightened awareness of Supreme.

- **Transmission of language in Jalpaiguri district during the Colonial and Post-Colonial period 19th and 20th Century: A Historical overview**

Gourango Chandra Roy
Assistant professor of History
Ananda Chandra College, Jalpaiguri

Abstract: There was diversity in folk language in Jalpaiguri district. The researchers have found 151 mother tongues in this district. Among them there were only eight foreign languages. But languages of outsider dominated over the local folk language. During the colonial rule in Jalpaiguri the spoken language of seventy seven percent people of this area was a corrupt dialect of Bengali, known as Rangpuri or Rajbansi. Rajbansi, Mahammadan, - most of Meches people used to spoke this language. However, Mech and Toto were native languages. Apart from these languages Bhutan or Tibetan, khas(Nepalis), Oraon, Mundari and Santhali and Hindi were also prevalent.

At present Bengali is the common spoken language in this area. Some other national level languages like Hindi, English etc. have gained popularity. It may be said that the different spoken languages are being mixed up into a corrupt dialect. Regarding micro-communication, linguistic communities use their own languages for the purpose of inter-communication. But the problem arises when the medium of instruction for education and mass communication medium is different. The language of Rajbansis and the others tribal people have their own language. When they go to market or educational institution they speak the language where the particular language is applicable. So they are forced to learn the language other than their own mother tongue. In this way the language itself got evolved throughout ages.

- **Nature and Literature: Ecocritical Reading of the Selected Poems of Mamang Dai**

Malabika Sinha
Assistant Professor
Department of English
Ananda Chandra College of Commerce
Jalpaiguri

Abstract: With the rapid expansion of science, commerce and technology, our planet earth faces recurrent eco disasters. In an era of globalisation, ecosystem and biodiversity are in decaying position. In this present scenario, Ecocriticisms has undergone rapid growth or enlargement since its introduction as ecological consciousness gains a major concern in today's world. Ecocriticism is a critical mode which evaluates the relationship between literature and environment. It is an earth centered approach, which stresses ecological consciousness and the interaction of human with nature. Indian English literature specially the writing of North East is inherently distinctive by the presence of nature, landscape, mountain ranges. Nature with all its vibrant colours occupies a special place in this multi ethnic region. The poetry of North East region of India is vividly enriched with the ecological glory of that region as well as awareness of ecological degradation. The dire

consequences of eco disasters make ecocritical approach as one of the dominant and primary theories among the contemporary world. Over exploitation of the natural resources and the disregard that man exhibits towards nature, has arisen the question of survival of civilisation. The theory of ecocriticism stresses the need to preserve environment and develop an understanding for sustainable, harmonious relationship between nature and human. Nature serves an integral part in the lives of the North Eastern people and the awareness of ecological destruction manifests in their writings. The serene nature with all its rich variety of flora and fauna gets grand momentum in the artistic creations of North East region. There are myriads of ways that nature is inextricably related with the cultures of the people of the region. Mamang Dai is one of the significant poets of North East writings whose ecological concerns are fervently delineated in her poetry. It is her belief that the rich cultural heritage of the region, natural beauty, traditions are in threats due to modernisation and urbanisation. She laments the loss of natural resources and the annihilation of nature which ultimately leads to the devastation of society. Trying to unveil the beauty of nature, she gives emphasis on the intricate relationship between human and nature, the abuse of nature in the consumer centric modern world. Her poetic voice expresses her deep concern and love to this fragile environment which is severely mistreated due to the forces of modernisation. This paper aims to focus on ecocriticisms. It gives emphasis on interconnected relationship between nature and human, how nature plays a crucial role in North East writings and perceives nature as a space where man can identify himself as well as how ecological perspectives as envisaged in the selected poems of Mamang Dai.

• Statehood Movement in the Erstwhile Princely State of Manipur from 1949 to 1972

Manojit Das

Assistant Professor of History,
Hiralal Bhakat College, Nalhati, Birbhum
&

Soumendra Prasad Saha

Assistant Professor of History,
Kushmandi Govt. College, Dakshin Dinajpur

Abstract:-

Manipur merged with the Indian Union in the year 1949, and the state became a Part C State Administered by the Union Government through the Chief Commissioner (under Articles 239-42, Part IX of the Constitution of India). The 'Statehood Movement' was an important historical event of the Post-merger Period of Manipur. It was a mass movement, in which all the leading political, social and voluntary organizations in the area were actively involved and participated in one way or other. The causes for the outbreak of the movement was directly connected with the administrative changes in

the state which was developed just after the merger of Manipur into India in the year 1949. It was a long continued movement based on the democratic and non-violent principle. The basic argument of the general public was that Manipur was an independent State before the merger into India. Therefore the political states of Manipur should not be degraded to the level of a Union territory. The demand and aspiration of the people was finally fulfilled after the movement passed through different phases of the political struggle. Prolonged discussion and negotiations followed several commissions and committees examined the issue finally the union territories of Manipur was granted statehood on 1st February, 1972. Through this article, I want to explore the different stages of statehood movement in Manipur.

- **An Intertemporal Discourse upon Substantial Production of Northeast States**

Rajeeb Bora,
Assistant Professor,
Department of Economics
Bongaigaon College

Abstract: In current generation sustainable development and conservancy of environment are recognized globally and for this main focus is on management of environmental resources and use of non-renewable resources. For sustainable development, in this paper, it has been considered substantial production method. Substantial production is a new objective of development in the modern economy which means promoting environmental friendly practices and reducing negative externalities from modern methods of production in various sectors as well as creates incentive to society for sustainable development in respective activities like agriculture and allied activities, technology and industrial work for the proper uses of natural resources. Substantial production means advance techniques of production of any output in such a way that without or less hampering environment, production can be continued for present as well as future generations. This paper attempts to explain the process of substantial method of production and its benefits for environment and society considering northeast states. Accordingly, it has been tried to discuss about "Substantial Production Methods" as an antibiotic measure of substantial development and proper use or management of environmental resources (land, water, energy etc.) and also concerns with carrying capacity of natural resources.

- **An Exploration unto the Quintessence of Christianity in the North East States**

Dr Sanjeev Kumar Mishra
Principal
Jeewachh College Motipur,
Muzaffarpur, Bihar

Abstract: There is no doubt that Christianity came into the lives of the people of north eastern states as a consequence of British colonisation; however, it is also a fact that much before this connection and long before the English East India Company was to acquire the Brahmaputra and Barak valleys and the hill periphery in the early part of the 19 century, Catholic congregations and the English Baptists of Seerampore were at work in ministering and evangelising small group of people. When organised Christian missions first came into Assam and its hill periphery in the early part of the 19th century, they were looked with suspicion and concern by the tribes and communities in the region and considered them destructive of their culture and traditions. Not surprisingly therefore, the early missionaries faced many obstacles in their mission of proselytization as the natives made the life of the missionaries difficult and sporadically assaulted missions which were looked upon as agents of the Raj. Later, there resulted a reaction to the spread of Christianity in the form of religious revival movements among some of the tribe. Seng Khasi movement in the Khasi hills and the Jadanong movement among the Zeliangraong Naga tribe in Manipur were two such movements. After a prolonged period of challenges and hardships which the missionaries confronted bravely, conversion movements gathered momentum until whole tribes, or most of them, became Christians within a few decades though most of the first converts suffered persecution from their own people. The interaction between Christianity and the hill peoples in North-East India has always been far from being smooth. Several political, social, economic and religious forces have combined together to form the new society of today. With the inflow of money from the British administration and the philanthropic services carried out by the missionaries, the political and economic set up started changing rapidly. Education further brought political consciousness and gave them a better position to bargain and assert their position in their land.

- **A study on the social, cultural, political and economic conditions with special reference to the North-Eastern India**

Gita Das.
B.Sc. LLM.
Asst. Prof. Dhubri Law College
Dhubri , Assam.

Abstract

Society is a organized group of persons associated together for religious, benevolent, cultural, scientific, political, patriotic or other purposes. It is a thing of common observation of every one that the individual is living, breathing, working, playing, resting, praying, enjoying, suffering, sometimes sweating, and sometimes swearing with millions like him in society. It is in the society that an individual is surrounded and encompassed by culture, a societal force. A socio-cultural environment is a set of beliefs, customs, practices and behaviour. The constitution of India adopts the right to equality and secularism. All the people in India are equally treated as well as protected by the constitution of India. Indian constitution is the supreme law of the land. The North-East of India is mixture of various

culture, language, cast, tribes and religion. In this regard an attempt has been made to study on the social, cultural, political and economic life in India with special reference to the North-East.

• **Impacts of Assam Movement on State Politics in Assam**

Dr. Goutam Sarkar
Assistant Professor
Department of Political Science
Raiganj University

Abstract:

Assam Movement was mainly originated against illegal immigrants in Assam. Before the emergence of AASU and its active participation in the state politics, no concrete move was taken to prevent the infiltration of the refugee. Indeed, the economic and demographic consequences of such a problem failed to attract the attention of any political party operating at the state level. In this situation All Assam Student Union (AASU) took a very leading role in the affairs of state politics and it penetrated in to the social, political, educational and cultural life of the state. Another important dimension of this movement was emergence of regional political party like Asom Gana Parishad (AGP) and it was able to run the state administration for a considerable period.

• **TRADITIONAL MEDIA IN THE MARRIAGE SYSTEM OF THE BODOS**

Dr. Jaysagar Wary
Assistant Professor
Dept. of History
Bodoland University

Abstract:

Communication has become an inseparable part of human since the dawn of civilization. Generally, the traditional media is the non-electronic mediums which acted as traditional carriers of information and messages from one generation to another generation. These traditional folk media plays a vital role in the communication of the indigenous people which have their roots from their cultural traditions. These traditional media is an inbuilt character which is genuine in nature highlights the socio-cultural developments of the society. Environment has also its own importance in the society due to their relationship with the people in their habitation, adaptation, socio-economic development as there is a communication between the two. The Bodo community which is largest indigenous tribes of North-east India has its own distinct traditions, customs, beliefs, religion. The Bodo community has

its own system of communication which provides wide range of sending and receiving of message. Traditional media basically include various art forms like folk theatre, folk dance, music, songs, folk tales, story-telling, lullaby, proverbs and idioms, games etc. Marriage is an important institution of the human life. The Bodo society follows systematic marriage system according to their societal norms and celebrated by social order as well. The Bodo community has been practicing various rites and rituals associated with the marriage system. This paper attempts to highlight the various forms of rites, rituals and customs followed by the Bodos and their signals or the media through which communication is made in the process of marriage.

- **An Outline of Intra-Regional Variations of Temple Architecture in the Koch-Kamta Region from 16th to 19th Century**

Arka Acharjee,
Assistant Professor(W.B.E.S),
P.G. Department of History,
A. B. N. Seal College, Cooch Behar

Abstract:

Temple in India is considered as the most emblematic & universal symbol of the religious core of Hinduism. The Hindu temple, in more than one sense, epitomises the numerous sides and complex processes of the cultural development of Hinduism through its architecture. The major temple styles listed and described in the “Vāstuśāstra” texts are the Nagara, Dravida and Vesara, of which the prime position is assigned to the Nagara of North India as the leading style. All the available texts are agreed on the point that the Nagara style was prevalent in the region between Himalayas and Vindhya. So, geographically Bengal belongs to the school of Nagara style. The history of Indian temple architecture witnessed the beginning of a distinct Bengal school which consisted of a series of parallel unique temple styles by which Bengal hold an important status in the architectural atlas in India from the 16th to 19th Century. In this connection a noticeable point may also be noted here that Northern part of Bengal also shows its architectural uniqueness by consuming and admixing various local & foreign attributes. Some key rudiments has played a significant role for the culmination of unique and composite type of sacred architectural examples in this zone. There are also some intra-regional variations of the styles and pattern of temple architecture in this marginal part of India. So through this article one attempt has been made to make an outline of intra-regional variations of temple architecture in the Koch-Kamta region from 16th-19th century.

- **Music of the Oppressed: the Cultural Politics and Indentured Labours in the Tea Gardens of Assam**

Kaushik Paul and Abhishek Podder

P.G Student
Dept. of Political Science
Presidency University
Kolkata

Abstract: Tea plantation industry is one of the historical and earliest commercial enterprise in Assam. It is not merely an industrial set-up, it bears a historical agony of painful memories; which has turned it into a space of cultural productions. The tea gardens of Assam has a rich heritage of its folk songs which talks about a shared memory of oppression, brutality, insecurity and inescapability. This shared memory stems from the question of indentured labour, employed in Assam for the purpose of

establishing commercial tea plantation. The experiment for tea plantation was first executed with some Chinese professional labours and then labours were hired from Cachar district. But this plan did not come into reality and therefore, labourers were imported from different parts of central India, mostly from Chota Nagpur region. There in the worst working condition, these labours were subjected to various oppressive and brutal punitive measures, if the works remain undone. They were not even able to escape from the workspace even if wish to do. All the struggles of daily life transformed into myriad cultural expressions. The pain of the labourers can be traced through the local folk songs of the Assam tea Gardens. Songs like, "Chol Mini Assam jabo, mone boro dukh re...", and "Babu bole kam kam, Saheb bole dhorai aan, Sardar bole libo pithor cham re..." are the words of popular culture of the mass in the tea gardens of Assam, which depicts the structural pattern of the authoritative violence. Thus, how the shared memories served as the pretext behind all these cultural productions and how much these cultural productions were revolutionary is the area of interest of this paper.

• **Boats, Boat Builders and Boat Building Tradition of Rosikbil in Coochbehar**

Debasish Dey
Ph.D Scholar
AIHC&A
Visva-Bharati, Santiniketan

Abstract: Boats, defined by Richard Steffy as “a small, open vessel”, are the earliest known means of transport, trade and communication used by people from ancient times. As time passed on, the use of boats have been minimized. This has largely affected the lives of boat builders whose sole source of earning got hampered. Amidst such situation, the present study will focus basically on Rosikbil, a waterbody, situated in Coochbehar district of West Bengal. Here, *Pansi* is the commonly found boat. Also called as Assamese boat, it is used for fishing purposes. Hence, the present paper will highlight the building tradition of *Pansi* boat in Rosikbil. The other part of the paper will focus on the lives and livelihood patterns of the boat builders of the place so as to understand the intertemporal changes in relation to boats in the society of Coochbehar, West Bengal.

• **Conflicts in North-East India and Government Initiatives in Peace-Making Process**

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Abstract: The north-eastern states in India is the most ethnically and culturally diverse region. North-east is home to around 220 ethnic communities, each community having distinct cultural and ethnic identity. North-east region shares international boundaries with Bhutan, Myanmar, China, Nepal and Bangladesh.¹ Thus, owing to its strategic significance the north-eastern region were incorporated in the Union of India after 1947. The region is connected to mainland India only through 22 km Siliguri corridor. Since merger with the territory of India resentment persisted on varied grounds which eventually led to conflicts. By

1990s almost all north-eastern states except Sikkim were witnessing insurgent activities.² The nature of conflict has become complex over the time and is not homogenous in character. Insurgent movements with secessionist tendencies, inter-ethnic violence and tension between migrants and indigenous groups coexists in the north-eastern region. Government of India has generalised these conflicts and has recognised them as low-intensity conflicts. The failure of the Indian government at centre to recognise ethnic and cultural specificities has further aggravated the alienation of this region.³ The response of Government of India to contain these situations has been the imposition of Armed Forces Special Powers Act, 1958 (AFSPA) which has been criticised by Human Rights groups both at national and international level for being a draconian law as it enables human rights abuse without accountability. AFSPA has given unrestricted powers to the security forces and has created a culture of impunity. The Indian government has resorted to military force to suppress the movement. According to data recorded till June 23, 2019 in north-east out of 17 fatalities 12 were civilians.⁴ The government has treated the conflict as 'law and order' situation which is rather problematic because political and economic factors have largely fuelled the discontentment amongst the people of north-east.⁵ A number of peace-agreements have been signed between agitating outfits of north-east states and Indian government. Although in recent years the violence has considerably declined, some active insurgent activities still prevails in some parts. This paper will try to study the attempts of Indian government to contain the conflict in north-east India and will evaluate its impact in the socio-political milieu of north-east region.

- **Defending Differences: On Framing of Literary Historiographies for North-East India**

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Abstract:As a part of 'Literary History from Below' initiatives after the onset of globalization, a growing curiosity towards possibilities to devise different literary historiographies for 'regional languages' has won wide acceptance of mainstream academia. During the initial years of classical comparativism in India, regional languages and literatures were treated as exotic components which substantiated the idea of colonial nationalist model of India. Therefore, those literatures and literary cultures which were influenced and were constructed on the basis of Western aesthetic patterns and presuppositions had been incorporated into the emerging 'Indian Language Studies' enterprise at University level. This kind of sanction had an immense pressure on the growing amateurish literary productions at regional level, which were also eventually left unrecognized and at times, uncharted. As for the cases of Assam and Tripura, many of the authors of early- Twentieth century, had tried their best for recognition by following the model of Bengali literature which, at that time, was entirely under the trance of colonial taste. This departure from the 'exotic' had germinated into the hierarchical 'elite-folk' binaries in literatures of those geographies. But, post-independence political

endeavours in North-East India to be recognized on the basis of regional differences and diversities, has had an effect of 'Affirmative sabotage' on the calcified structures of colonial literary historiography. With the accelerating stresses on differences and the palpable disillusionment with hegemonic 'Indianness', the new regime is ready to grab a new theoretical stand untouched by pressing presuppositions. This paper seeks to streamline those endeavours for delving into the deep of variations of cultural poetics which are at work in North-Eastern part of India since last few decades.

Report of the National Seminar

I am glad to present the report of the ICSSR sponsored National Seminar on "An Inter-Temporal Discourse upon the Society, Culture, Polity and Economy of North-Eastern and Eastern India" organized by the faculty of Humanities and Social Sciences, A B N Seal College, Cooch Behar. The seminar was organized with the objective to explore gaps in research, methodical issues and the need for an agenda on wide, intensive research works in Eastern and North-Eastern India.

With the encouragement and active support from the Principal-in-Charge, IQAC, faculty members and non-teaching staff, it was possible to make all necessary arrangements for the successful conduct of this seminar. Invitation letter were sent to various Colleges, Universities all over India through post and e-mail. More than 65 participants from different Colleges, state and Central Universities responded and participated in the National Seminar. The seminar had five plenary lecture sessions and five parallel sessions where lectures were delivered by academic personalities of various capacities.

The inaugural session began at 09:30 a.m. on 27th February 2020. Dr Bimal Kumar Saha, Principal-in-Charge presided over the inaugural function and welcomed the audience. Dr. Writuparna Chakraborty, Convener of Seminar and Research Sub-Committee

A B N Seal College, introduced the chief-guest and offered felicitations to the invited dignitaries. Dr. Debasish Mallick, Director, National Seminar explained the Theme and Sub-themes of the National Seminar. Our chief-guest delivered the keynote address. He gave a talk on "Unbalanced Regional Development in Indian History from the pre-colonial to the post-colonial Phases" which was followed by the first session just after a short tea-break. During the first session, seminar committee arranged two plenary lectures. The first lecture was delivered by Dr Tarun Kumar Bahadur, Dept. of Economics and convener of IQAC, Bongaigaon College, Assam. Dr Bimal Kumar Saha, President of National Seminar, delivered the second plenary lecture. After one-hour launch break, three parallel technical sessions were organized. These were presided over by Dr Prajnaparamita Sarkar, Dr. Tarun Kumar Bahadur and Dr. Samir Kumar Samanta respectively. Dr. Prajnaparamita Sarkar (Dept. of History) and Dr. Samir Kumar Samanta (Dept. of Geography) -both are teaching Faculty member of A B N Seal College, Coochbehar.

On the very beginning of second day sessions, Dr. Debasish Mallick, Director of National Seminar welcomed the invited guests and introduced them before the audience. During the first session, seminar committee organized two plenary lectures - delivered by Dr. Jayita Sengupta (HoD, Dept. of English, CBPBU) and Dr. Samar Sinha (Dept. of Nepali, Sikkim University) respectively. After a short tea-break, the first technical session was presided over by Dr. Samir Kumar Samanta (Dept. of Geography ABNSC). Soon after launch break, Dr. Anita Bagchi, Dept. of History, University of North Bengal, delivered her plenary lecture. One separate technical session dedicated to students (research scholars and P.G) began after the plenary lecture session. This session was presided over by Dr. Samar Sinha of Sikkim University.

The valedictory session began at 04:30 p.m. Dr. Debasish Mallick, director of National Seminar welcomed the audience. Principal-in-Charge Dr. Bimal Kumar Saha presided over the special prize giving ceremony for the best paper presentation by students. The valedictory

address was delivered by Dr. Samar Sinha of Sikkim University. The vote of thanks was proposed by Sri Partha Sarathi Aich, Organising Secretary of the National Seminar. Finally a concluding note and official declaration of the closing was given by Dr. Bimal Kumar Saha, Principal-in-Charge of A B N Seal College, Cooch Behar.

Dr. Dibyatanu Dasgupta
Convener

National Seminar Organizing Committee

Recommendations

Various recommendations were suggested after much deliberations at the two-day National Seminar by the invited experts. The thrust areas that have been identified are:

- ❖ To explore new ideas regarding interconnections among different groups of people who are part of ethnic heritage and how these interactions resulted in unique socio-cultural heritage, regional conflicts, threat to security and national integrity particularly in Eastern and North-eastern India.
- ❖ To attempt a holistic study on the preservation of linguistic ecology, biocultural diversity and re-examine their role as an integrated institution of ethnic heritage.
- ❖ To analyze and evaluate the connections between beliefs, myths, rituals and practices as well as prevailing ideas, theories and ground realities so as to gain sense of how poverty and unemployment affect people as well as the unique cultural complexity in this region.
- ❖ To bring the region in the centre-stage of national socio-cultural, economic and security policy analysis. Familiarise “Eastern and North-Eastern India” among young academics, encourage them to undertake research-work on these regions and its people for rich dividends.
- ❖ To explore various socio-economic policy impact, unbalanced regional temporal development, improve the social cost-benefit analysis and to incorporate social impacts more intensively into government decision making process and finally to interpret the implications of the aggregate measures of socio-cultural and economic wellbeing.
- ❖ To provide valuable insights in the mind-set of scholars for a much methodical research work which may add new horizons in the sphere of

knowledge. Future course of actions should familiarise “Eastern and North-Eastern India” among young academics, encourage them to undertake research-work on these regions and its people for rich dividends.

PHOTO GALLERY



