

গড়গাঁও মহাবিদ্যালয়  
GARGAON COLLEGE

**International Conference**  
**on**  
**ADVANCES IN SCIENCE**  
**[Hybrid Mode]**  
**May 5-6, 2023**

**Organized by**  
**Gargaon College Science Forum**  
**In Collaboration with**  
**CSIR-NEIST, Jorhat, Assam**  
**&**  
**IQAC**  
**Gargaon College**  
**Simaluguri, Sivasagar, Assam**



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## Concept Note of the conference

Gargaon College Science Forum invites scientists, experts, researchers, and academics at all stages of their careers to join its 5 and 6 May 2023, **Conference on Advances in Science** to highlight the potential of the new development of science for societal development and to bring social change with its upcoming new technologies, Interdisciplinary, multidisciplinary and transdisciplinary research is playing a key role towards the advancement of higher education across the globe.

The **Conference on Advances in Science** aims in all branches of science to explore the possibilities of connecting futuristic research areas, revolutionary ideas, and breakthrough research results with unconnected areas, This will assuredly create the zeal of scientific temperament amongst the youth as well as an opportunity for the experts who are looking for new areas in science. The Conference wants to create a platform with the help of renowned scientists, academics, and researchers for cordial interaction with people par excellence in various disciplines of science and research in his/her career. Original contributions are solicited on topics covered in broad areas.



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## Conference Topics/Scope of the Conference

**Conference topics include various fields of-**

- Physical Sciences
- Chemical Sciences
- Mathematical Sciences
- Earth and Atmospheric Sciences
- Life Sciences
- Statistics and Computation
- Computer Sciences
- Environmental Sciences
- Application of Quantitative Techniques and Software in Social Sciences



## *Organizing Committee*

**Chief Patron:** Dr. Sabyasachi Mahanta, Principal, Gargaon College

**Patron:** Dr. Rina Handique, Vice Principal, Gargaon College

Dr. Dilip Kumar Deka, President, GCSF

Dr. Surajit Saikia, Coordinator, IQAC, Gargaon College

**Convenor:** Dr. Ranjan Gogoi, HOD, Statistics

**Secretary:** Dr. Kabita Phukan, Secretary, GCSF

Ms. Bornali Dutta, Asstt. Secretary, GCSF

**Coordinators:** Dr. Rina Handique, HOD, Zoology [Life Sciences]

Mr. Diganta Konwar, HOD, Physics Physical Sciences]

Dr. Dilip Kumar Deka, HOD, Geography [Earth and Atmospheric Sciences]

Dr. Krishna Jyoti Handique, HOD, Economics [Social Sciences]

Dr. Anna Gogoi, HOD, Chemistry [Chemical Sciences]

Dr. Kabita Phukan, HOD, Mathematics [Mathematical Sciences]

Dr. Chandraditya Gogoi, HOD, Geology [Earth and Atmospheric Sciences]

Dr. Dimbeswar Das, HOD, Botany [Life Sciences]

Dr. Arandao Narzary, Asstt. Professor, Chemistry [Environmental Sciences]

Mr. Harekrishna Mili, Asstt. Professor, Mathematics [Computer Science]

Ms. Bornali Dutta, Asstt. Professor, Statistics [Statistics and Computation]

**Members:** All members of Gargaon College Science Forum



**Gargaon College**

**Gargaon College Science Forum**  
GARGAON & COLLEGE  
ESTD 1959  
IQAC  
Gargaon College  
present


**1<sup>st</sup> International Conference**

on

# Advances in Science

[Hybrid]

**May 5-6, 2023**



### About Gargaon College

Established in 7th September, 1959, Gargaon College enjoys the reputation being one of the premier institutes imparting quality education among the learners from Higher Secondary to Post Graduate level. The college came under the deficit-grants-in-aid system of Government of Assam in the year 1966 and had also been included under section 12 (B) and 2 (f) of UGC Act 1956 and affiliated to Dibrugarh University. The College is assessed and accredited by NAAC.

Located in the heart of Gargaon of Sivasagar District of Assam, the college is fourteen kilometers to the east of Sivasagar and well connected by road and rail. The Simaluguri Railway Station lies at a distance of 2.2 kilometers from the college premises. The nearest airport at Jorhat is 65 km away from Gargaon College, and is well connected by road.

The Gargaon College has three faculties - Arts, Science and Commerce spread over seventeen departments. The College has PG courses in five subjects of humanities and UG courses in seventeen subjects of science, arts and commerce with honours under Dibrugarh University.

The college follows curriculum prescribed by the Assam Higher Secondary Education Council for Higher Secondary in Arts, Science and Commerce. The college also provides one year Post Graduate Diploma in Computer Applications (PGDCA) and UG & PG courses in distance learning mode, both under DU.

From the historical perspective, Gargaon was the capital of the Ahom Kingdom from 1539 A.D. to 1695 A.D. The Kareng Ghar, the seven storied Royal Palace of the Ahom kings, is situated in Gargaon. Several unique and ancient monuments have been found in the environs of Gargaon that resonate the glory of the Ahom kingdom.

### About Gargaon College Science Forum

Established in 5th June, 2012, Gargaon College Science Forum (GCSF) is a platform for all science faculties of Gargaon College to exchange ideas and views of scientific issues and development along with popularizing science among children by adopting various science-based activities regularly. The key objective of GCSF is to educate common people about science and desires to inform them about the implications of recent research findings for global wellbeing. Till date GCSF had published two volumes of Open Science, a compilation of science articles contributed by academics and researchers of North East India and had regularly organized number of events in the college and at nearby schools to popularize science education as well as to create awareness on scientific issues.



### About the 1st International Conference on Advances in Science

Gargaon College Science Forum invites scientists, experts, researchers and academics at all stages of their career to join its 5 & 6 May, 2023, **Conference on Advances in Science** to highlight the potential of new development of science for the societal development and to bring social change with its upcoming new technologies. Interdisciplinary, multidisciplinary and transdisciplinary research are playing a key role towards advancement of higher education across the globe. The **Conference on Advances in Science** aims in all branches of science to explore the possibilities of connecting futuristic research areas, revolutionary ideas, breakthrough research result with unconnected areas. This will assuredly create the zeal of scientific temperament amongst the youth as well as an opportunity for the experts who are looking for new areas in science. The Conference wants to create a platform with the help of renowned scientists, academics and researchers for cordial interaction with people par excellence in various disciplines of science. This will certainly inspire students to pursue science and research in his/her career. Original contributions are solicited on topics covered under broad areas mentioned below.

### Conference Topics/ Scope of the Conference

Conference topics include from various fields of

01 Physical Sciences	05 Life Sciences
02 Chemical Sciences	06 Statistics and Computation
03 Mathematical Sciences	07 Computer Sciences
04 Earth and Atmospheric Sciences	08 Environmental Sciences
09 Application of Quantitative Techniques and Software in Social Sciences	

<b>Last Date of Abstract Submission</b>	16-04-2023
<b>Date of Notification of Acceptance</b>	13-04-2023
<b>Full Length Paper Submission</b>	27-04-2023
<b>Last Date of Submission of Registration Fee</b>	15-04-2023
<b>Conference Dates</b>	5-6 May, 2023
<b>Registration Fee for Paper Presenter</b>	Rs. 1500/-
<b>Registration Fee for Listener/ Accompanying Person</b>	Rs. 500/-
<b>E-Mail ID for Abstract &amp; Full Paper Submission</b>	submitconferencegcsf@gmail.com
<b>Google Link for Registration Fee Payment</b>	<a href="https://forms.gle/mEJyWnYzF6WbC8Mc8">https://forms.gle/mEJyWnYzF6WbC8Mc8</a>
<b>Venue of the Conference</b>	Gargaon College, Assam

**Note:**

- Registration fee doesn't include the publication charges.
- Conference Organizing Committee does not provide any accommodation for participants. The Committee can arrange hotel accommodation for outstation participants at Nazira on request and payment basis.

**Abstract Submission Guidelines:**

- Abstract should be written in Times New Roman with 12 font size with a line space 1.5.
- The word limit for the Abstract is 250-300 words and the full-length paper is around 5000 words with 5 keywords.
- Corresponding Authors E-Mail ID, contact number should be included.
- Selected papers will be published in forthcoming volumes of Open Science (Vol I, II, III) with ISBN.

### Payment Details:

Gargaon College Science Forum  
A/C No. 0028010221603  
IFSC: PUNB0002820  
Bank: United Bank of India, Simaluguri Branch

### Registration Link:

<https://forms.gle/mEJyWnYzF6WbC8Mc8>

WhatsApp Group Link: 

### Organizing Committee

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**Members:** All Members of Gargaon College Science Forum

### CONTACT US:

Dr. Ranjana Gogoi: 09435055461  
Dr. Dilip Kumar Deka: 9435155088  
Dr. Kabita Phukan: 8638344973  
Ms. Bornali Dutta: 8876261741



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## GARGAON COLLEGE

### List of Participants

### Invited Papers

Sl. No	Key Note Speaker	Title of the Paper
1	G. Narahari Sastry	Artificial Intelligence and Sustainable Development.

Sl. No.	Presenter	Title of the Paper
1	Dr. Binoy Kumar Saikia	Indigenous Production of Carbon Nanomaterials: An Approach for Atmanirbhar Bharat.
2	Dr. Mantu Bhuyan	The Crisis of Insect Decline: Causes & Consequences
3	Nabajyoti Molia & Dr. Santanu Baruah	Role of Geophysical Techniques in Disaster Studies and Large Constructions.
4.	Dr Bhaskar Jyoti Bhuyan	Semiconductor Fabrication: Role of Chemists in Device Miniaturization.
5	Dr. Rana Howlader	Recent Advances in 3D NAND Flash Memory Devices.
6	Dr. Juriti Rajbangshi	Investigation of Heterogeneous Orientational and Translational Dynamics in (Choline Chloride + Urea) Deep Eutectic Solvents: A Molecular Dynamics Simulations Study.
7	Dr. Minakshi Saikia	Chemosensitization and Molecular Targeted Therapies for Cancer Treatment
8	Dr. Ankur Saikia	Developing Novel Tools for Cancer Immunotherapy.
9	Dr. Bhaskar Jyoti Sarmah	Synthesis and Characterization of Carbonyl Complexes of Rh(I), Ir(I) and Ru (II) and their applications.
10	Rantu Saikia	Artificial Intelligence: The Next Big Breakthrough in Humanity.



## Registered Papers

### Chemical Sciences:

Sl. No.	Presenter	Title of the Paper
1	Bhupen Kumar Baruah, Gajendra Kumar Mourya & Bubul Chandra Neog.	Water Extract of the Jackfruit ( <i>Artocarpus heterophyllus</i> ) Leaves as Anti-diabetic Agent: A Study on its Traditional Approach.
2	Dr. Subrat Jyoti Borah	A Green Synthesis of Montmorillonite-K10 Supported Silver Nanoparticles Using Tulsi Leaf Extract: An Efficient Voltametric Sensing Agent for Dopamine and Ascorbic Acid.
3	Ananya Dutta & Dr. Sonit Kumar Gogoi	Carbon Dots: Synthesis and Study of their Photoluminescence.
4	Y. Nyori & A. Phukan	Analysis of Physico-chemical Parameters of Surface Water of two villages - Ranging and Legging of East Siang District, Arunachal Pradesh.
5	Utpal Sadhonider & Bhaskar Jyoti Sarmah	Montmorillonite Clay Supported Silver Nanoparticle: A Highly Efficient Catalyst for the Reduction of 4-Nitrophenol
6	Angshuman Bora, Jilhas Ahmed, Jayashree Nath & Bhaskar Jyoti Sarmah	Nanoporous Montmorillonite Clay Stabilized Copper Nanoparticles: Efficient and Reusable Catalyst for Acceptor less Dehydrogenation of Alcohols to Carboxylic Acids.
7	Plaban Jyoti Sarma, Pakiza Begum, Tushmita Das, Arandao Narzary, Rituraj Tahu & Saheen Shehnaz Begum	A Hydride Assisted Pathway in the Hydrogenation of CO <sub>2</sub> into Formic acid on Small Tin Dioxide Clusters.
8	Shreemoyee Phukan	An Assessment of Ground Water Quality around the Silapathar area, Assam.
9	Dr. Pinky Saikia	Synthesis and Characterization of Binary and Ternary Ni/Fe and Ni/Mg/Fe based Mixed-Metal Hydroxides by Soft Chemical Sol-Gel Method.
10	Jayashree Nath & Bhaskar Jyoti Sarmah	A Solvent-free and Practical Protocol for $\beta$ -Amino Ketone and their derivatives.



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### Earth And Atmospheric Science:

Sl. No.	Presenter	Title of the Paper
1	Rumajyoti Hazarika & Barsha Dutta	Space Weather Effect Dring Geomagnetic Storm.
2	Dr. Madine Hazarika & Sanjay Das	Land use land Cover Dynamics in Sivasagar District with Special reference to soil.
3	Durlov Lahon, Dhrubajyoti Sahariah, Dilip Kumar Deka, Monurama Phukon.	Impact of land use and land cover Changes on Ecosystem Service Value in Small Wetlands: A Case Study of Merbil Wetland in Assam, India.
4	Progya Bhattacharjee.	A Comparative Study on Flood and Resultant Bank Erosion on the Tea Garden Areas Surrounding River Dibru and Its Economic Impacts with reference to the Year (1995-2019).
5	Dr. D. Nath, D. K. Deka, Dr. R. Neog & M. Phukon	Hepato- protective Ethno-medicinal value of few Medicinal Plants uses for Hepatitis in un-divided Sivasagar District of Assam, India.
6	Yadav Krishna Gogoi, Pradip Borgohain, Diganta Bhuyan, Devojit Bezbaruah, Garima Konwar, Manash Pratim Gogoi & Dipanjal Chutia	Elucidation of Tectonic-provenance and Depositional environment of Lesser Himalayan Gondwana Group of rocks of Arunachal Pradesh, India: A Petrographic and Palynological Approach.
7	Manash Jyoti Saikia	Potential of REE Mineralization in Migmatite and Younger Intrusive Rocks in Sonbhadra District, Uttar Pradesh In Relevance to National and International Standard: Ore Genesis and Exploration Significance, A Review Works.
8	Fatimah, Kakoli Gogoi and Saif Said	Sediment Yield Index Model to Assess Soil Yield in Part of Lower Betwa Watershed, Central India.
9	Sujang Khiamniungan & Kakoli Gogoi	Megascopic Properties of Mafic-ultramafic Rocks in Parts of Noklak District, Nagaland.
10	Kiran & Kakoli Gogoi	Application of Google Earth Engine on Land Use Land Cover with Special Emphasis on Vegetation: A Case Study of Coalfields in Parts of The Pranhita-Godavari Basin, Telengana, India
11	Bonika Buragohain & Monmohan Gogoi	Seismic Data and Seismic Data Processing: A review.
12	Chandraditya Gogoi	Sediment Characteristics of Quaternary Deposits of the Parts of Brahmmaputra Valley.
13	Manash Pratim Gogoi	Fluvio-Morphometric Analyses of Puthimari River Drainage Basin.
14	Dr. Ranjeeta Kar	Genesis And Depositional History of an Extra-Peninsular Gondwana Basin in Darjeeling District, West Bengal, India.
15	Nabajyoti Molia	Effect of change in Coulomb-stress on Gutenberg-Richter relation for the seismicity of Alpine-Himalayan orogeny in and around Afghanistan.





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### Life Sciences:

Sl. No.	Presenter	Title of the Paper
1	Pranati Gogoi, Namita Nath.	An Update on the Flora of Dibrugarh District, Assam in accordance with APG IV.
2	Pampi Sarmah	Lichen diversity in Joya Gogoi College Campus, Khumtai, Golaghat, Assam.
3	Loxmi Rekha Gogoi, Sadananda Dutta & Farishta Yasmin	Screening of Dirinariapicta Extracts for Antibacterial Activity against Soil Bacteria Belonging to Gram-Positive and Gram-Negative Group.
4	Dr. Snehashish Dutta	A New Additional Record to the Number of Variants in Ipomoea Aquatica Forssk. From Assam.
5	Dr. Dimpy Das	Synthetic seeds - A novel approach for in vitro plant propagation.
6	S. K. Sarma, Dr. R. K. Sarma & D. Barman	Genetic Diversity of Land Races and Improved Varieties of Rice ( <i>Oryza Sativa</i> L) Collected from Dhubri District, Assam.
7	Eva Rani Hazarika & Bonani Saikia	Study on Trypsin Activity in Two Strains of <i>Samia ricini</i> , Donovan Reared on Castor Leaves.
8	Arundhati Gogoi & Dipika Kalita	Composition and Distribution of Aquatic Insect Communities in Relation to Water Quality of Kapla Beel (Wetland) of Barpeta district, Assam.
9	Mr. Khuraijam Maheshpal, Mr. Akash Chetry, Dr. Janmoni Moran	A Study on Insect Pollinator Diversity for Wildflowers in Namsai, Arunachal Pradesh, India.
10	Archana Deka	Development of Antivenom-immobilized Magnetic Nanoparticles for Immunocapture of Snake Venom Proteins.
11	Dr Parbin Iraqui	Evaluation of Antimicrobial Activity of Hydrogel Prepared from Leaf extract of <i>Cassia Alata</i> L against Skin Diseases.
12	Anurag Protim Das and Shyama Prasad Biswas	Synergistic Effects of Natural Carotenoids and Light Sources on Body Pigmentation of Banded Gourami ( <i>Trichogaster fasciata</i> ): Conversion of Potential Plant-derived Bio-resources into Dietary Carotenoid Supplement.



**Mathematical Sciences:**

Sl. No.	Presenter	Title of the Paper
1	Nijara Konch	Further Bounds on $A$ $\alpha$ - Energy of Graphs.
2	Dr. Joydeep Borah	A Numerical Study of an MHD Fluid Flow past a Vertical Porous Plate with Soret and Dufour Effect.
3	Champak Kr. Neog	A Study on the Behavior of Hydrodynamic Coefficients of SurRadiated Potential by a Floating Cylinder in Presence of a Bottom-Mounted Cylindrical obstacle in Two-Layer Fluid.
4	Kaushik Dehingia	Stability of SARS-CoV-2 within-host viral kinetics with discrete time delay.
5	Dibyajyoti Hazarika	Controllability of Fractional Dynamical Systems with Almost Sectorial Operator.
6	Joan Laldinpuii	A Mathematical Model of Coronavirus Disease (COVID-19) with Vaccination.
7	Santana Hazarika	Effects of Variable Viscosity and Thermal Conductivity on MHD Natural Convection Heat and Mass Transfer Flow of Dusty Fluid through a Sphere.
8	Dr. Kabita Phukon and Harekrishna Mili	Effects of Variable Viscosity and Thermal Conductivity on Mixed Convection Heat and Mass Transfer Flow along a Vertical Moving Surface.
9	Dr. Niky Baruah, Dr. Manoshi Kotoky	On Optimal Location of Sensors in a Traffic Control Problem Using Clique of a Graph.
10	Yangersenba T Jamir & Dr Sanghita Dutta	Some remarks on a Graph of $C(X)$ .
11	Budheswar Deka	Computation of Generalized ISI Index of Some Para Cactus Chains.
12	Surashmi Bhattacharyya and Arun Kumar Baruah	On Finite Element Method in Multiparameter Eigen Value Problem.
13	Dr. Rupok Neog	A Mathematical Model of Evolution of some Words of a Language from some Prime Words.
14	Debakanta Buragohain	Mordell-Weil Group Law on Elliptic Curves and their Rank.
15	Ritwick Duwarah I, Dr. Kabita Phukon, Harekrishna Mili	The Adomian Decomposition Method for Finding Solutions of Nonlinear Partial Differential Equations of first order with $n$ variables
16	Sujata Goala	A correction to "The free Solidarity value".



## Physical Sciences:

Sl. No.	Presenter	Title of the Paper
1	Dibyajyoti Kakoti, Purabi Gogoi and Pankaj Dutta.	Influence of ZnS Nanoparticles on the improvement of PL efficiency of Sm <sup>3+</sup> ion insol-gel silica matrix.
2	Gayatri Mohan	Dark Matter in f(R) Theory of Gravity.
3	Dr. Gitashri Arandhara	Dopant-Concentration Dependent Optical and Structural Properties of Nanostructured Ag-Doped ZnS Thin Films.
4	Dhrubajyoti Saikia	Fabrication Of Oled Using Various Thickness of Electron Transport Layer.
5	Bidyut Bikash Hazarika, Jayanta Sonowal and Guna Kanta Sonowal	A Cyclically Symmetric Solution with Causality Violation.

## Statistics and Computational Science:

Sl. No.	Presenter	Title of the Paper
1	Abul Kashim Md Fujail, Jarita Das	Artificial Intelligence and its Role in Cyber Security: An Overview.
2	Vanlalruata Hnamte and Jamal Hussain	Intrusion Detection System using Improved One-dimensional Deep Convolutional Neural Network.
3	Debajyoti Bora, Dr. Bornali Dutta and Dr. Manash Pratim Barman	A Neuro-Fuzzy Inference System Approach Model for Diagnosing Heart Failure Death.
4	Krishnarjun Bora, Manash Pratim Barman	Identification of the Sounds of Traditional Musical Instruments using Random Forest Classifier and Multinomial Logistic Regression.
5	Dr. Jumi Kalita	Application of Smoothing Technique in Analysis of Dropout Rates in Special Educational Institutions of Assam.
6	Dr. Deepshikha Deka and Dr. Bhanita Das	Frechet-Weibull Distribution and Some of its Properties.
7	Mrinal Deka	A Collateral Research between the Treatment Techniques of Cancer: The Technique of Propensity Score Matching.
8	Diksha Das and Bhanita Das	Discretized Version of Generalized Gompertz Distribution with Application to Real Life Data.
9	Deepjan Gohain and Bhupendra Kumar Singh	Estimation of Population Mean by using Ratio in Regression type Imputation Method with Two Auxiliary Variables under Simple Random Sampling.
10	Dr. Sangeeta Bora	Statistical Analysis of the Variations in Fertility between Two Major Communities in Assam.
11	Sulaxana Bharali and Jiten Hazarika	Regression Model when both Explained and Explanatory Variable follow Non normal Distribution.
12	Juri Borah and Sarthak Sengupta	Short Birth Interval and its Determinants among the Dibongiya Deori Women of Lakhimpur District, Assam.
13	Gariyashi Borah, Dr. Bornali Dutta, Dr. Ranjana Gogoi	A Comparative Study on the Use of Alcohol and Tobacco among Medical and Engineering Students of Assam.



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### Social Sciences:

Sl. No	Presenter	Title of the Paper
1	Yuvaraj Gogoi	Identity Politics and Political Consciousness: A Case Study of the Jarawas of Andaman.
2	Dr. Pankaj Kumar Nath & Ms. Nilakhi Chetia	Present Status of Information Communication Technology and Institutional Repositories in Libraries of Provincialized Colleges in Sivasagar District.
3	Dr. Pobon Kr. Gogoi, Upama Saikia & Bhaswati Bordoloi	Government Welfare Schemes: An analysis of Assam.
4	Parishmita Kakati	A Study on Empowerment of Women in Higher Education Institutions in Sivasagar, Assam
5	Dr. Bonnie Amonge Crerar	Understanding Resilience and Its Development Among Children Play: Through A Review Based Study.
6	Dr. Krishna Jyoti Handique	Economic Life of the Konyak Nagas in Assam.
7	Dr. Poli Konwar	Social Aspects of Kaibarta Community in Sivasagar District of Assam.
8	Pragya Jyoti Boruah	The Role of Cooperative Society for Agricultural Marketing in Sibsagar District of Assam. A Case Study of Kheluwa Development Block.
9	Dr. Rimjim Borah	Household Energy Consumption Pattern, Expenditure and Determinants in Golaghat District of Assam.
10	Priya Das, Dr. Anjan Konwar & Dr. Jitu Saikia	Polyphonic Reverberations of Science: A Study of Mary Shelly's Frankenstein.
11	Monikha Gogoi, Nidhi Gogoi & Dr. Manjumoni Gogoi Dhar	The Growth of Traditional Textile and Dying Techniques in Pre-Colonial Assam with Special Reference to the Role of Women.
12	Mina Robi Das & Moni Saikia	Study on Academic Anxiety Among the College Students of Sivasagar District: Causes and Preventive Measures.
13	Mr. Anil Tanti & Dr. Meghali Bora	Financial Status of Tea Garden Women through Self Help Group: A Study of Sivasagar District in Assam.
14	Nilutpal Chutia, Dr. Surajit Saikia & Ankika Dutta	Do the Oil Extractive Industries Augment the Physical Capital of the Neighbouring Rural Communities in Assam? A Study with Reference to ONGC and OIL.
15	Janardan Chetia, Mr. Rajib Gogoi & Mr. Bitupal Borgohain	Plagues and Pandemics: A Critical Study of its Representation in Literature.
16	Dr. Ramananda Das & Miss Liza Das	Agricultural Methods During Mediaeval Period in Assam.
17	Ms. Aparajita Kalita	Formulation of Ready-To-Serve (RTS) Blended Beverage from Passion Fruit (Passiflora Edulis) and Watermelon (Citrullus Lanatus).
18	Ms. Ananya Kashyap	In Vivo Bioavailability of Two Popular Greens of Assam.



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GARGAON COLLEGE

## Overview of the International Conference:

A two-day International Conference was organized by Gargaon College Science Forum in association with IQAC and CSIR-NEIST, Jorhat on 5th and 6th May 2023. It was sponsored by ONGC, Assam Asset, Nazira and SBI, Gargaon. The theme of the conference was “Advances in Science” which took into account most of the branches of science including social sciences. The program began on 5th May 2023 by the hoisting of the GCSF Flag within college premises by the President of the GCSF, Dr. Dilip Kumar Deka. The Inaugural Ceremony was held at the Academic Gallery commencing with a chorus of the college anthem by faculty members and students of the college, followed by the lighting of the ceremonial lamp. The inauguration ceremony was hosted by the Convenor of the program, Dr. Ranjana Gogoi, Head, Department of Statistics who at the onset welcomed the Principal of the college, Dr. Sabyasachi Mahanta to deliver the welcome address. He emphasized that science is one of the greatest collective endeavors in human history. He welcomed all the dignitaries and the audience and thanked everyone associated with the conference.

The program was inaugurated by the Hon'ble Vice Chancellor of Dibrugarh University, Prof Jiten Hazarika, provided the audience with an engrossing talk on what advances science and how science advances us. He stated that Science starts with curiosity and questioning the convention. He emphasized that just as Faith leads to God, the unfaith, the one who questions the how and why explores the science and that is Science that has transformed the way we think, work, and interact with each other. A book as an Abstract volume, edited by Mr. Rituraj Tahu, Mr. Harekrishna Mili, Dr. Bornali Dutta, Dr. Rituraj Neog and Dr. Saheen Shehnaz Begum from Gargaon College with ISBN No. 978-81-945305-2-7, of the conference was also released at the Inaugural Session in presence of all the other dignitaries like Executive Director and Asset Manager ONGC, Nazira, Mr. Rajesh Kumar Sharma, Shanti Swaroop Bhatnagar, and Assam Gaurav Awardee, Dr. Binoy Kumar Saikia from CSIR-NEIST, Senior Principal Scientist from CSIR-NEIST Dr. Mantu Bhuyan, Dr. Manash Pratim Barman, Head of the Department of Statistics, Dibrugarh University, Dr. Kalpana Deka Kalita, Professor of Applied Geology, Dibrugarh University, Ravindra Nawal, Branch Manager, SBI, Gargaon ADB and Surendra Nath Dutta, member, Governing body of the Gargaon College. Mr. Rajesh Kumar Sharma, ED, ONGC also spoke a few words on the importance of imagination for the growth of science. He inspired particularly the students to dream big and work hard to achieve that dream.



# গড়গাঁও মহাবিদ্যালয়

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In absence of Dr. G. Narahari Sastry, Director, CSIR-NEIST, owing to health issues, Assam Gaurav awardee, Dr. Binoy Kumar Saikia, Principal Scientist from NEIST delivered the Keynote Address of the conference on the topic “Indigenous Production of Carbon Nanomaterials: An approach for Atmanirbhar Bharat.” He elaborated on Carbon dots and nanodiamonds – their structure and application for new age electronic batteries. He highlighted on its facile nature, cost-friendly and eco-friendly nature. The session was followed by a vibrant interaction and discussion round followed by a 10-minute break.

The conference was conducted in a hybrid mode and split into nine technical sessions excluding the Inaugural Session and the Valedictory Session in which participants from various institutions from different parts of the world presented their research papers. Dr. Mantu Bhuyan, Senior Principal Scientist, CSIR-North East Institute of Science & Technology gave a talk on “The Crisis of Insect Decline: Causes & Consequences” and Dr. Santanu Baruah, Senior Scientist, Geo-Science Division, CSIR-NEIST spoke about the “Role of Geophysical Techniques in Disaster Studies and Large Constructions”, both in offline mode. Several invited talks were also held on the second day in an online mode where the invited resource persons joined the International conference from different parts of the world through Zoom. Dr. Bhaskar Jyoti Bhuyan, Senior Manager, Process Chemistry, Centre of Excellence in Chemistry, Applied Materials Inc, CA, USA talked on “Semiconductor Fabrication: Role of Chemists in Device Miniaturization”. Dr. Minakshi Saikia, Post-Doctoral Research Associate at Radiation Oncology Department, Washington University School of Medicine, St. Louis, Missouri, USA delivered a technical talk on “Chemosensitization and Molecular Targeted Therapies for Cancer Treatment”. Dr. Ankur Saikia, Post Doctorate at Technical University Denmark, Copenhagen, Denmark, delivered a talk on “Developing Novel Tools for Cancer Immunotherapy”. Rantu Saikia, Partner Sales Engineer at Google Cloud, Google Germany GmbH, Berlin DE enriched the session with a talk on “Artificial Intelligence: The Next Big Breakthrough in Humanity”. Dr. Juriti Rajbangshi, Postdoctoral Researcher at the Deptt. of Chemical & Biological Engineering, University of Wisconsin-Madison, USA, delivered a talk on “Investigation of Heterogeneous Orientational and Translational Dynamics in (Choline Chloride + Urea) Deep Eutectic Solvents: A Molecular Dynamics Simulations Study” for the benefit of the audience. After a few technical glitches, Dr. Rana Howlader, from Applied Materials Inc., California, USA and an alumnus of the Gargaon College talked on the topic “Recent Advances in 3D NAND Flash Memory Devices”. Dr. Bhaskar Jyoti Sarmah chaired the invited talks session and then in the consecutive technical session enthralled the audience on the topic “Synthesis and Characterization of Carbonyl Complexes of Rh(I), Ir(I) and Ru (II) and their applications”.



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There were number of technical sessions which focussed on specific branches of science. The session on Earth & Atmospheric Sciences was chaired by Prof. Kalpana Deka Kalita from the Department of Applied Geology at Dibrugarh University. Dr. Chandraditya Gogoi from the Department of Geology at Gargaon College served as the coordinator, while Dr. Chirantan Bhagawati, also from the Department of Geology at Gargaon College, acted as the Rapporteur. The session featured a total of six online papers and four offline papers. In technical Session with the branch of focus on Statistics, Dr. Manash Pratim Barman served as the Chairperson, while Dr. Bornali Dutta was the coordinator. Miss Sujata Goala acted as the Rapporteur. The session included six online papers and seven offline papers. For technical session with the focus on the branch of Life Sciences, specifically Botany, Dr. Mantu Bhuyan served as the chairperson, with Dr. Dimbeshwar Das as the coordinator and Mrs. Sangeeta Chetia as the Rapporteur. The session featured one online paper and four offline papers. In the session specific to Zoology, Dr. Chinmoyee Sonowal chaired the session, while Pimily Langthasa served as the Coordinator and Dr. Anurag Protim Das as the Rapporteur. The session featured four online papers and one offline paper. In the technical session that centered around the branch of Physical Sciences, Dr. Santanu Baruah acted as the Chairperson, Mr. Diganta Konwar as the Coordinator, and Dr. Bidyut Bikash Hazarika as the Rapporteur. The session included two online papers and three offline papers. For the technical session of the branch of Chemical Sciences, the session was chaired by Dr. Bhaskar Jyoti Sarmah with Dr. Anna Gogoi as the Coordinator. The Rapporteur duty was carried forward by Dr. Plaban Jyoti Sarma.

The total number of offline presentations was six and the total number of online presentations was seven. In the technical session focussing on Mathematics, Dr. Palash Dutta served as the chairperson, Dr. Kabita Phukon as the Coordinator, and Miss Sujata Goala as the Rapporteur. The session included five online papers and eleven offline papers. In the session that revolved around Geography and Environmental Science, Dr. Mrinal Nath acted as the Chairperson, Dr. Dilip Kumar Deka as the Coordinator, and Dr. Priyanka Tamuli as the Rapporteur. The session featured three online papers and two offline papers. In the technical session with branch specific of Social Sciences, Dr. Pranjal Protim Buragohain was the Chairperson and Dr. Krishna Jyoti Handique was the Coordinator while Ms. Ankika Dutta served as Rapporteur of the session. Total number of online papers presented was one and offline papers presented were sixteen. In all the branch-specific technical sessions, altogether 37 presentations were online and 54 presentations were offline.



# গড়গাঁও মহাবিদ্যালয় GARGAON COLLEGE

After the end of all the technical sessions, the Valedictory Session ensued. It was graced by the Principal Gargaon College, Dr. S. Mahanta, Dr. Mrinal Nath, Associate Professor from the Department of Geography, J.B. College (Autonomous), Dr. Bhaskar J. Sarmah, Assistant Professor from the Department of Chemistry at Jorhat Institute of Science and Technology, along with Dr. Rina Handique, Vice-Principal of the college, Dr. Dilip Kumar Deka, President, GCSF and Dr. Ranjana Gogoi, Convener of the Conference. In his address, Principal Gargaon College appreciated the efforts of the organising team for achieving a milestone by thorough discussion of science from around the world. After the ceremonial distribution of the certificates, a few participants also shared their experience of the programme and the facilities of the college. The valedictory ceremony finally showcased a Bihu Husori performed by the students of the college. The final vote of thanks was offered by Dr. Dilip Kumar Deka.

## Flyer of the Program:

**1<sup>st</sup> INTERNATIONAL CONFERENCE**  
*on*  
**Advances in Science**  
**5<sup>th</sup> & 6<sup>th</sup> May 2023**  
*Organised by*  
**Gargaon College Science Forum  
& IQAC Gargaon College**  
*In collaboration with*  
**CSIR-NEIST**  
**Gargaon College, Simaluguri, Sivasagar, Assam**  
*Sponsored by :*  
**ONGC Assam Asset & SBI Gargaon ADB**





## List of Participants Online Registration:

Name of the participants	Official Designation	Title of the paper
Arundhati Gogoi	Ph.D Research Scholar	Composition and distribution of aquatic insect communities in relation to water quality of Kapla beel (wetland) of Barpeta district, Assam
Nabajyoti Molia	DST-INSPIRE JRF	Effect of change in Coulomb-stress on Gutenberg-Richter relation for the seismicity of Alpine-Himalayan orogeny in and around Afghanistan
Dr. Archana Deka	ICMR-Research Associate	Development of antivenom-immobilized magnetic nanoparticles for immunocapture of snake venom proteins
DR SNEHASHISH DUTTA	Associate Professor	"A new additional record to the number of variants in Ipomoea aquatica Forssk from Assam"
Proggya Bhattacharjee	Assistant Professor	A comparative study on Flood and resultant Bank Erosion on Tea Garden Areas surrounding River Dibru and its economic impacts
Dr. SUBRAT JYOTI BORAH	ASSISTANT PROFESSOR	A Green Synthesis of Montmorillonite-K10 Supported Silver Nanoparticles Using Tulsi Leaf Extract: An Efficient Voltametric Sensing Agent for Dopamine and Ascorbic Acid
DIBYAJYOTI KAKOTI	Assistant Professor	Influence of ZnS Nanoparticles on the improvement of PL efficiency of Sm <sup>3+</sup> ion in sol-gel silica matrix
Champak Kr. Neog	Research Scholar	A study on the behavior of hydrodynamic coefficients of surge radiated potential by a floating cylinder in presence of a bottom-mounted cylindrical obstacle in two-layer fluid
Yangersenba T Jamir	Research Scholar	Some remarks on a graph of C(X)
DR. ERAMONI SAIKIA	Assistant Professor	Only participant
PAMPI SARMAH	ASSISTANT PROFESSOR	Lichen diversity in Joya Gogoi College Campus, Khumtai, Golaghat, Assam
PRANATI GOGOI	Assistant Professor	An update on Flora of Dibrugarh District, Assam in accordance with APG IV
Krishnarjun Bora	Research Scholar	Identification of the Sounds of Traditional Musical Instruments using Random Forest Classifier and Multinomial Logistic Regression
MANASH PRATIM GOGOI	Assistant Professor	FLUVIO-MORPHOMETRIC ANALYSES OF PUTHIMARI RIVER DRAINAGE BASIN
Dr. Ranjeeta Kar	Assistant Professor	Genesis and depositional history of an extra-peninsular Gondwana Basin in Darjeeling District, West Bengal, India
DR. KAUSHIK DEHINGIA	Assistant Professor	Stability of SARS-CoV-2 within-host viral kinetics with discrete time delay
Eva Rani Hazarika	Assistant Professor	Study on Trypsin activity in two strains of Samia ricini, Donovan reared on Castor leaves
Mrs.Bonani Saikia	Assistant Professor	Study on Trypsin activity in two strains of Samia ricini, Donovan reared on Castor leaves"
Dr Abul Kashim Md Fujail	Assistant Professor	Artificial Intelligence and its Role in Cyber Security: An Overview
Dr Rumajyoti Hazarika	Assistant Professor	Space weather effect during geomagnetic storm
Debakanta Buragohain	Assistant Professor	Mordell-Weil Group Law on Elliptic Curves and their Rank
Dr Dhrubajyoti Saikia	Assistant Professor	FABRICATION OF OLED USING VARIOUS THICKNESS OF ELECTRON TRANSPORT LAYER
Dr. Jumi Kalita	Assistant professor	Application of Smoothing Technique in Analysis of Dropout Rates in Special Educational Institutions of Assam"
Bhupen Kumar Baruah	Assistant Professor	Water Extract of the Jackfruit (Artocarpusheterophyllus) Leaves as Anti-diabetic Agent: A Study on Its Traditional Approach
Dibyajyoti Hazarika	Research Scholar	Controllability of Fractional Dynamical Systems with Almost Sectorial Operator
Dr. Mrinal Deka	Statistical Investigator	A Collateral Research between the Treatment Techniques of Cancer: The Technique of Propensity Score Matching
Dr Barsha Dutta Kakoty	Assistant Professor	Space weather effect during geomagnetic storm



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Gayatri Mohan	Assistant Professor	Dark Matter in f(R) theory of gravity
Yumi Nyori	Assistant Professor	Analysis of Physico-chemical parameters of Surface Water of two villages - Ranging and Legging of East Siang District, Arunachal Pradesh
Dr. Alakesh Phukan	Assistant Professor	Analysis of Physico-chemical parameters of Surface Water of two villages - Ranging and Legging of East Siang District, Arunachal Pradesh
Dr Parbin Iraqui	Assistant Professor	Evaluation of antimicrobial activity of hydrogel prepared from leaf extracts of Cassia alata L against skin diseases
Joan Laldinpuii	Ms	A Mathematical Model of Coronavirus Disease(COVID-19) with Vaccination
Manash Jyoti Saikia	Junior Research Fellow (Teaching Assistant)	Potential of REE mineralization in migmatite and younger intrusive rocks in Sonbhadra District, Uttar Pradesh in relevance to national and international standard: Ore genesis and exploration significance, a review work
YADAV KRISHNA GOGOI	PhD Research Scholar	Elucidation of Tectono-provenance and Depositional environment of Lesser Himalayan Gondwana Group of rocks of Arunachal Pradesh, India: A Petrographic and Palynological Approach.
Nijara Konch	Assistant Professor	Further bounds on $A_{\pm}$ - energy of graphs
Dr. Joydeep Borah	Assistant Professor	A Numerical Study of an MHD Fluid Flow past a Vertical Porous Plate with Soret and Dufour Effect
Vanlalruata Hnamte	Research Scholar	Intrusion Detection System using Improved One-dimensional Deep Convolutional Neural Network
DIKSHA DAS	RESEARCH SCHOLAR	DISCRETIZED VERSION OF GENERALIZED GOMPERTZ DISTRIBUTION WITH APPLICATION TO REAL LIFE DATA
Ms Aparajita Kalita	Assistant Professor	Formulation of Ready-To-Serve (RTS) Blended Beverage from Passion Fruit ( <i>Passiflora edulis</i> ) and Watermelon ( <i>Citrullus lanatus</i> )
Santana Hazarika	Assistant professor, of department mathematics	Effect of variable viscosity and thermal conductivity heat and mass transfer flow of dusty fluid through a sphere
Dr. Janmoni Moran	Assistant Professor	A study on Insect Pollinator Diversity for wildflowers in Namsai, Arunachal Pradesh, India
Akash Chetry	Research Scholar	A study on insect pollinator diversity for wildflowers in Namsai, Arunachal Pradesh, India
Ananya Dutta	PhD scholar	Carbon dots: synthesis and study of their photoluminescence
Dr. Pobon Kumar Gogoi	Associate Prof	Government welfare scheme: An analysis of Assam
Nilakhi Chetia	Associate Professor	Present Status of Information Communication Technology and Institutional Repositories in Libraries of Provincialized Colleges in Sivasagar District.
Dr. Poli Konwar	Assistant Professor	Social Aspects of Kaibarta Community in Sivasagar District of Assam
Dr. Krishna Jyoti Handique	Associate Professor	Economic Life of the Konyak Nagas in Assam
Ms. Bhaswati Bordoloi	Guest faculty	Government welfare scheme;An analysis of Assam
Dr. Pankaj Kumar Nath	Librarian	Present Status of Information Communication Technology and Institutional Repositories in Libraries of Provincialized Colleges in Sivasagar District.
Dr. Deepshikha Deka	Assistant Professor	Frechet Weibull Distribution and Some of its Properties
Dr. Sangeeta Borah	Research Fellow	A Statistical Analysis of the Variations in Fertility between two Major Communities in Assam
Upama Saikia	Research Scholar	Government Welfare Schemes and Analysis of Assam
Bonika Buragohain	Assistant professor .	Seismic data and Seismic data processing..
YUVARAJ GOGOI	Assistant Professor	IDENTITY POLITICS AND POLITICAL CONSCIOUSNESS: A CASE STUDY OF THE JARAWAS OF ANDAMAN



# গড়গাঁও মহাবিদ্যালয়

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Dr. Dipika Kalita	Assistant Professor	Composition and distribution of aquatic insect communities in relation to water quality of Kapla beel ( wetland) of Barpeta district, Assam
Dr. SULAXANA BHARALI	Asst. Professor	Regression Model when both Explained and Explanatory Variable follow Nonnormal Distribution
Dr. Ananya Kashyap	Assistant Professor and HoD	In vivo bioavailability of two popular greens of Assam
Dr. Chandraditya Gogoi	Assistant Professor	Sediment characteristics of Quaternary deposits of the parts of Brahmaputra valley
Dr. Plaban Jyoti Sarma, Dr. Pakiza Begum, Ms. Tushmita Das	Assistant professor	A Hydride Assisted Pathway in the Hydrogenation of CO <sub>2</sub> into Formic acid on Small Tin Dioxide Clusters
Dr. Shreemoyee Phukan	Assistant Professor	An Assessment of Ground Water Quality around the Silapathar area, Assam
Budheswar Deka	Assistant Professor	Computation of generalized ISI index of some para cactus chains.
Dr Rupok Neog	Assistant Professor	A Mathematical Model of Evolution of some Words of a Language from some Prime Words
DEEPAJAN GOHAIN	ASSISTANT PROFESSOR	Estimation of Population mean by using Ratio in Regression type Imputation method with two auxiliary variables under Simple Random Sampling
S. KIRAN	RESEARCH SCHOLAR	Application of Google Earth Engine on Land Use Land Cover with special emphasis on vegetation: A case study of coalfields in parts of the Pranhita-Godavari Basin, Telangana, India
Dr Gitashri Arandhara	Assistant Professor	Dopant-concentration dependent optical and structural properties of nanostructured Ag-doped ZnS thin films
Sujang Khiamniungan	Research Scholar	MEGASCOPIC PROPERTIES OF MAFIC-ULTRAMAFIC ROCKS IN PARTS OF NOKLAK DISTRICT, NAGALAND.
Kakoli Gogoi	Faculty	Application of Google Earth Engine on Land Use Land Cover with special emphasis on vegetation: A case study of coalfields in parts of the Pranhita-Godavari Basin, Telangana, India - Kiran and Kakoli Gogoi
Fatimah	PhD research student	Sediment yield index model to assess soil yield in part of lower Betwa watershed , central india
Dr Bomali Dutta	Assistant Professor	A Neuro-Fuzzy Inference System Approach Model for diagnosing Heart Failure Death
Ms Gariyashi Borah	Guest Faculty	A Comparative Study on the use of Alcohol and Tobacco among medical and engineering students of Assam
Monmohan Gogoi	Research Scholar	Seismic Data ana Seismic data processing: A review
Dr. Juri Borah	Assistant Professor	Short birth interval and its determinants among the Dibongiya Deori women of Lakhimpur district, Assam
Dr Meghali Bora	Associate Professor	Financial Status of Tea Garden Women through Self Help Group: A Study of Sivasagar District in Assam
Sadananda Dutta	Students	SCREENING OF <i>Dirinaria picta</i> EXTRACTS FOR ANTIBACTERIAL ACTIVITY AGAINST SOIL BACTERIA BELONGING TO GRAM-POSITIVE AND GRAM-NEGATIVE GROUP
Nabajyoti Molia	Junior Research Fellow (DST-INSPIRE)	Effect of change in Coulomb-stress on Gutenberg-Richter relation for the seismicity of Alpine-Himalayan orogeny in and around Afghanistan
Dr. Niky Baruah	Assistant Professor	On Optimal Location of Sensors in a Traffic Control Problem using Clique of a Graph.
Surashmi Bhattacharyya	Assistant Professor	On Finite Element Method in Multiparameter Eigenvalue Problem



# গড়গাঁও মহাবিদ্যালয়

## GARGAON COLLEGE

Durlov Lahon	Research Scholar, Dept. of Geography	Impact of land use and land cover changes on ecosystem service value in small wetlands: A case study of Merbil wetland in Assam, India
Mr. Anil Tanti	Sr. Assistant Professor	Financial status of tea garden women through self help groups
Moni Saikia	Student	“A Study On Academic Anxiety Among the College Students Of Sivasagar District: Causes And Preventive Measures”
Utpal Sadhoner	Assistant Professor	Montmorillonite Clay supported Silver Nanoparticles: A highly efficient catalyst for the reduction of 4-Nitrophenol
Loxmi Rekha Gogoi	Student	SCREENING OF <i>Dirinaria picta</i> EXTRACTS FOR ANTIBACTERIAL ACTIVITY AGAINST SOIL BACTERIA BELONGING TO GRAM-POSITIVE AND GRAM-NEGATIVE GROUP
DR. PINKY SAIKIA	ASSISTANT PROFESSOR	Synthesis and Characterization of binary and ternary Ni/Fe and Ni/Mg/Fe based Mixed-Metal Hydroxides by soft chemical Sol-Gel method
Mina Robidas	Assistant Professor Gargaon college, Department of sociology	“A Study On Academic Anxiety Among the College Students Of Sivasagar District: Causes And Preventive Measures”
Dr. Dibyajyoti Kakoti	Assistant Professor	Influence of ZnS Nanoparticles on the improvement of PL efficiency of Sm <sup>3+</sup> ion in sol-gel silica matrix
Dr. Dharmeswar Barman	Assistant Professor	Genetic diversity of land races and improved varieties of rice ( <i>Oryza sativa</i> L) collected from Dhubri District, Assam
Ritwick Duwarah	Guest Faculty	The Adomian Decomposition Method for finding solutions of Nonlinear partial differential equation of first order with n variables
Bonnie Amonge Crerar	Assistant Professor	Understanding Resilience and its development among Children through play: A Review Based Study
Angshuman Borah	Student	Nanoporous montmorillonite clay stabilized copper nanoparticles: Efficient and reusable catalyst for Acceptorless Dehydrogenation of Alcohols to Carboxylic Acids
Jilhaz Muhiuddin Ahmed	Student	Nanoporous montmorillonite clay stabilized copper nanoparticles: Efficient and reusable catalyst for Acceptorless Dehydrogenation of Alcohols to Carboxylic Acids
DEBAJYOTI BORA	Assistant Professor	A Neuro- Fuzzy Inference System Approach Model for Diagnosis Heart Failure Death
Dr. Anjan Konwar	Asst. Prof.	Polyphonic Reverberations of Science: A Study of Mary Shelly's Frankenstein
JAYASHREE NATH	Assistant Professor	A solvent-free and Practical Protocol for $\beta$ -Amino ketone and their derivatives
Dr. Kabita Phukon	Assistant Professor	“EFFECTS OF VARIABLE VISCOSITY AND THERMAL CONDUCTIVITY ON MIXED CONVECTION HEAT AND MASS TRANSFER FLOW ALONG A VERTICAL MOVING SURFACE”
HAREKRISHNA MILI	Assistant Professor	“EFFECTS OF VARIABLE VISCOSITY AND THERMAL CONDUCTIVITY ON MIXED CONVECTION HEAT AND MASS TRANSFER FLOW ALONG A VERTICAL MOVING SURFACE”
Dr. Dimpny Das	Assistant professor	Synthetic seed- A novel approach for in vitro plant propagation.
Liza Das	Research Scholar	Agricultural methods during medieval period in Assam
Dr. Madine Hazarika	Assistant Professor	LU/LC CHANGE IN SIBSAGAR DISTRICT ASSAM WITH REFERENCE TO TEXTURE OF SOIL.
Sanjay Das	Selection Grade Professor	Land use/ Land cover change dynamics in Sivasagar district, Assam with reference to texture of soil
Sujata Goala	Assistant Professor	A correction to "The free Solidarity value"



# গড়গাঁও মহাবিদ্যালয় GARGAON COLLEGE

## List of Participants Offline Registration:

Sl no	Name of participants	Institution and Department	Registration fee	Contact no.	Signature	Remarks
1	Dr. Rashmi Ravha Saikia	Department of English, Gargaon College	500	9954162421	[Signature]	
2	Ma. Runjun Hazarika	Department of Assamese Gargaon College	500/-	9866857624	[Signature]	
3	Mohananda Tamuli	Department of Sociology Gargaon College	500	6002847520	[Signature]	
4	Dr. Ankur Dutta	Department of Sanskrit Gargaon College	500	7002921402	[Signature]	
5	Devajani Bakarial	Gargaon College	500	9101937707	[Signature]	
6	DR. ANNA GOGOI	Dept. of Chemistry, Gargaon College	500/-	9435153444	[Signature]	
7	DR. BALURAM DAS	Dept. of History, Gargaon College	500/-	9438964296	[Signature]	
8	DR. RIJANANDA DAS					
8	Shomi					
8	SHOMKAI MANHAM	Dept. of History Gargaon college	500	9395011971	[Signature]	
9	Dr. SAHEEN SHEHNAZ BEGUM	Dept. of Chemistry, Gargaon college	500/-	7002560074	[Signature]	
9	DR. BIDYANANDA BORKAKOTY	Dept. of Education	500/-	910152524	[Signature]	
10	MISS SANDEEPA AGARWAL	Dept. of Botany, Gargaon college.	500	7002186757	[Signature]	
11	MRS. SANGEETA CHETIA	Dept. of Botany, Gargaon college.	500	8134967809	[Signature]	
12	PRANAB DOWRAH	Dept. of Assamese Gargaon college	500/-	8638795749	[Signature]	
13	Dr. PRIYANKA TAMULI	Dept. of Sociology Gargaon College	500	8751867267	[Signature]	
14	DR. SHYAMOLINA SAIKIA	Dept. of English, Gargaon College	500/-	9435967263	[Signature]	
15	DIGANTA KONWAR	Dept. of Physics Gargaon College	500/-	7002107857	[Signature]	
16	DR. DIMBESHWAR DAS	Dept. of Botany Gargaon College	500/-	9864387746	[Signature]	
17	BHAGYALAKSHI GOGOI	Dept. of Economics Women's College, Tinsukia	500		[Signature]	
18	Dr. ERAMONI SAIKIA	Dept. of Chemistry D.D.R. College, Chabua				→ Paid online



# গড়গাঁও মহাবিদ্যালয় GARGAON COLLEGE

## Inaugural and Technical Sessions of the International Conference



<https://www.youtube.com/watch?v=t2EHeYqisPc>

<https://www.youtube.com/watch?v=bpfcFs0xi6s>

<https://www.youtube.com/watch?v=Dv-ReT4faeU>





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# গড়গাঁও মহাবিদ্যালয় GARGAON COLLEGE

## News Paper Clipping of the Event

### International conference on advances in science at Gargaon College

OUR CORRESPONDENT

SIVASAGAR, May 5:

Gargaon College Science Forum and IQAC hosted the first day of the 1st International Conference on Advances in Science with a grand opening on Friday, in collaboration with the CSIR-NEIST, Jorhat Chapter. The event started with the hoisting of the Gargaon College Science Forum flag by Dr Dilip Kumar Deka, president of Gargaon College Science Forum. The inaugural ceremony of the International Conference commenced with the college anthem, followed by the lighting of the ceremonial lamp. Dr Ranjana Gogoi, Head of the Department of Statistics and Convenor of the International Conference, moderated the event.

Noted educationist and poet Dr Sabyasachi Mahanta, the Principal of Gargaon College, delivered the welcome address. He spoke on the incredible advances made by science in recent years. He deliber-

ated science as "one of the greatest collective endeavours in human history". Dr Mahanta welcomed all the dignitaries and the audience and thanked the event's stakeholders. Vice Chancellor of Dibrugarh University, Prof Jiten Hazarika, inaugurated the conference by saying that science starts with disbelief and doubt. He opined, "Science has transformed our lives in an incredible manner and also transformed the way we think, work and interact with each other."

Rajesh Kumar Sharma, Executive Director, ONGC, Assam Asset, Nazira, released the abstract volume of the International Conference in the inaugural session in the presence of other dignitaries like Dr Mantu Bhuyan, Senior Principal Scientist, Dr Manash Pratim Barman, Head of the Department of Statistics, Dibrugarh University, Dr Kalpana Deka Kalita, Professor of Applied Geology, Dibrugarh University,

Ravindra Nawal, Branch manager, SBI Simaluguri (ADB), Surendra Nath Dutta, Governing Body Member, Gargaon College, Dr Rina Handique, Vice Principal, Gargaon College and Dr Dilip Kumar Deka, President of the Gargaon College Science Forum and the Head of the Department of Geography.

Principal Scientist CSIR-NEIST and Shanti Swaroop Bhatnagar and Assam Gaurav awardee, Dr Binoy Kumar Saikia delivered the keynote address of the International Conference on the topic "Indigenous Production of Carbon Nanomaterials: An Approach for Atmanirbhar Bharat." He spoke on the prospects of carbon and its applications. He also highlighted his patent US 10655061B2, which is facile, cost-effective, and eco-friendly. The inaugural session ended with a vote of thanks proposed by Dr Saheen Shehnaz Begum, Assistant professor of Chemistry

### গড়গাঁও মহাবিদ্যালয়

## আন্তঃৰাষ্ট্ৰীয় সন্মিলন আৰম্ভ

প্রতিদিন বিশেষ সেৱা, শিৱসাগৰ, ৫ মে' : গড়গাঁও মহাবিদ্যালয়ৰ বিজ্ঞান মঞ্চৰ উদ্যোগত আৰু আভ্যন্তৰীণ মান নিৰূপণ কোষৰ সহযোগত আয়োজিত 'এডভান্সেছ ইন ছায়েন্স' শীৰ্ষক দুদিনীয়া আন্তঃৰাষ্ট্ৰীয় সন্মিলনখন আজি উদ্বোধন কৰা হয়। যোৰহাটস্থিত চি এছ আই আৰ-নেইষ্টৰ বিশেষ সহযোগত আয়োজিত সন্মিলনখন প্ৰথমদিনৰ উদ্বোধনী অনুষ্ঠানত আদৰ্শী ভাষণ দিয়ে অধ্যক্ষ ড° সব্যসাচী মহন্তই। সন্মিলনখন উদ্বোধন কৰে ডিব্ৰুগড় বিশ্ববিদ্যালয়ৰ উপাচার্য প্ৰাধ্যাপক ড° জিতেন হাজৰিকাই। কাৰ্বনৰ উদ্ভাৱন বিষয়ত বীজ ভাষণ দিয়ে নেইষ্টৰ জ্যেষ্ঠ বিজ্ঞানী অসম সৌৰভ ড° বিনয় কুমাৰ শইকীয়াই। উদ্বোধনী অনুষ্ঠানত বিশিষ্ট অতিথিকৈ অংশগ্ৰহণ কৰি তেল আৰু প্ৰাকৃতিক গেছ নিগম, নাজিৰাৰ পৰিচালন সঞ্চালক আৰু কে শৰ্মাই সন্মিলনৰ সাৰাংশ গ্ৰন্থ উন্মোচন কৰে। সন্মিলনৰ সমন্বয়ক ড° বঞ্জনা গগৈয়ে আঁত ধৰা অনুষ্ঠানত গড়গাঁও মহাবিদ্যালয়ৰ উপাধ্যক্ষ ড° বীণা সন্দিকৈ, বিজ্ঞান মঞ্চৰ সভাপতি ড° দিলীপ কুমাৰ ডেকা, ডিব্ৰুগড় বিশ্ববিদ্যালয়ৰ অধ্যাপক ড° কল্পনা ডেকা কলিতা আৰু ড° মানসপ্ৰতিম বৰ্মন, নেইষ্টৰ জ্যেষ্ঠ বিজ্ঞানী ড° মণ্টু ভূঞা, ভাৰতীয় ষ্টেট বেংক গড়গাঁও এ ডি বি শাখাৰ প্ৰবন্ধক ৰবীন্দ্ৰ নাৱালকে প্ৰমুখ্য কৰি মহাবিদ্যালয়ৰ অধ্যাপক-অধ্যাপিকা, বিভিন্ন প্ৰান্তৰ গৱেষক-আলোচক আৰু ছাত্ৰ-ছাত্ৰীসকল উপস্থিত থাকে।

## Two-day international conference on advances in science concludes

OUR CORRESPONDENT

SIVASAGAR, May 7: A two-day international conference on the theme 'Advances in Science' organized in hybrid mode by Gargaon College Science Forum and IQAC on May 5 and May 6, concluded successfully on Saturday at Gargaon College.

The international conference was sponsored by ONGC, Assam Asset, Nazira and SBI, Gargaon, ADB Branch. The conference organized in collaboration with the CSIR-NEIST, Jorhat Chapter began with the hoisting of the flag of the Gargaon College Science Forum by Dr Dilip Kumar Deka, president of Gargaon College Science Forum. The inaugural ceremony was coordinated by Dr Ranjana Gogoi, Head of the Department of Statistics and

Convenor of the International Conference.

Noted academician and poet and Principal of Gargaon College, Dr Sabyasachi Mahanta, in his welcome address, spoke on the incredible advances made by science in recent years and welcomed all the dignitaries and participants. Vice Chancellor of Dibrugarh University, Prof Jiten Hazarika, inaugurated the conference. Rajesh Kumar Sharma, Executive Director, ONGC, Assam Asset, Nazira, released the abstract volume of the international conference in the inaugural session in presence of other dignitaries like Dr Mantu Bhuyan, Senior Principal Scientist, Dr Manash Pratim Barman, Head of the Department of Statistics, Dibrugarh University, Dr Kalpana Deka Kalita, Professor of Applied Geology, Dibrugarh Uni-

versity, among others.

Principal Scientist of CSIR-NEIST and Shanti Swaroop Bhatnagar and Assam Gaurav awardee, Dr Binoy Kumar Saikia in his keynote address on the topic 'Indigenous Production of Carbon Nanomaterials: An Approach for Atmanirbhar Bharat' spoke on the prospects of carbon and its applications.

The two-day conference which was conducted in hybrid mode was split up into 11 technical sessions in which participants from various institutions worldwide presented their research papers. The main attraction of the conference was the invited papers from India and overseas presented by resource persons and scholars on recent advances in science.

The valedictory session of the conference was graced by Dr Sab-

yasachi Mahanta, Principal of Gargaon College, Dr Mrinal Nath, Associate Professor of the Department of Geography, JB College, Dr Bhaskar Jyoti Sarmah, Assistant Professor of the Department of Chemistry, Jorhat Institute of Science and Technology, along with Dr Rina Handique, Vice-Principal of the college, and others.

Dr Sabyasachi Mahanta, Principal of the college, in his address appreciated the effort of Gargaon College Science Forum, IQAC and the entire organizing team in holding the conference, which according to him was an important step in the direction of exploring the potentialities and prospects of new advancements in science and technology. The valedictory ceremony also showcased a Bihu *husori* performed by the students of the college.



