

Pramana



Newsletter of the Department of Physics

B.H. College, Howly, Barpeta, Assam

Volume 1 | 2022-2023

INSIDE THIS VOLUME

Activities

- Inauguration of Wall Magazine
- Freshman cum Farewell ceremony
- Seminar/ Group discussion
- Conduction of MCQ test
- Extension Services
- Holding of Physics Olympiad
- Faculty Exchange Programme

Publication

Paper Presentation

Achievements

Programme/ Courses Attended

Students' Result

EDITORIAL BOARD

Editors

- Jyoti Prasad Roy Choudhury
HoD, Dept. of Physics
- Dandeswar Deka
Assistant Professor, Dept. of Physics

Advisors

- Dr. Bhushan Ch. Pathak
Principal
- Ranjit Bhuyan
Vice-Principal
- Dr. Rabinjyoti Khataniar
IQAC Co-ordinator
- Dr. Nabajit Das
Assistant Professor, Dept. of Zoology

Members

- Sanatan Kr. Nath
Assistant Professor, Dept. of Physics
- Nabaneeta Basak
Assistant Professor, Dept. of Physics

Student Members

- Abhijit Paul, B Sc 5th Sem.
- Barnali Karmakar, B Sc 5th Sem.

FROM THE PRINCIPAL'S DESK

I am very much happy to know that the Department of Physics, B. H. College, Howly is going to publish the first volume of its yearly Newsletter *Pramana* from the current academic session (2022-2023) onwards. *Pramana* will provide a greater platform to showcase the various achievements of the Department and the teacher-student community in various fields. Apart from inculcating a sense of accomplishment, it will nurture the spirit of working with enthusiasm. The achievements earned in different fields inspire us to pursue our dreams and achievements that will provide us the taste of those dreams and motivate us to work further with greater zeal and enthusiasm. I have a strong conviction that a commendable effort like *Pramana* by the Physics Department will fruitfully serve its purpose in motivating the students and the faculty members to inspire for higher goals and achievements. I do appreciate the tireless efforts of everyone involved in the publication of the Newsletter and congratulate the teacher-student fraternity of the Department of Physics.



Dr. Bhushan Ch. Pathak
Principal
B. H. College,
Howly

EDITORS' COLUMN

Pramana is a Sanskrit word. It means Praman, i.e., Proof. In Physics every theory is proved by either theoretically or experimentally. Physics is a broad subject having diversities. Now a days there is no field in science where Physics is not involved. Modern discoveries in Physics like Nano Science, Artificial Intelligence (AI), Space Science, Information Technology (IT) etc. have changed the world in a different way. It makes the life style of humans very fast. When we decided to commence an annual newsletter of the Department in which we can documentize annually the constructive activities and achievements of Physics family, we belief that *Pramana* will be the ideal name. In this volume we have included the activities and achievements of the Physics Department for the session February, 2022 to January, 2023.

We would like to convey our heartfelt gratitude to Dr. Bhushan Ch. Pathak, Principal, B. H. College, Ranjit Bhayan, Vice-Principal, B. H. College and Dr. Rabinjyoti Khataniar, IQAC Co-ordinator, B. H. College, for providing valuable suggestions and constant motivations in every step. We offer our gratefulness to all the faculty members of the Department for their support and co-operation. We also express our thankfulness to our dear students for their dedication and sincerity towards the Department.

ACTIVITIES

Freshman Social cum Farewell Ceremony 2022



Freshman Social and Farewell program was held on 22/10/2022 organized by Department of Physics, B. H. College, Howly. It is an excellent way to welcome all the newcomers into the small Physics family. Senior's students from B. Sc. 5th and 3rd semester of the Department of Physics had organised the programme as a formal reception for students joining the first semester.

All the faculty members of the Department of Physics shared their thoughts and encourage students to maintain the dignity and decorum of the Physics family.

The Fresher's participated actively in each and every activity organized by the senior students in the programme and showcase a glimpse of their talents with various excellent and wonderful performances. Senior students also won the heart of the newcomers with their performance and gifts were presented to them as a token of love.

Along with the programme a Farewell Ceremony was also conducted to bid Farewell to the just passed out students of our Department. They also shared their feelings and experiences being BHians.

Inauguration of Wall Magazine 2022



Six Wall magazines with the following themes have been inaugurated by Dr. B. C. Pathak, Principal, B. H. College, Howly today at 12 noon. Physics: Unwinding Cosmos, Chemistry: Chocolate Chemistry, Mathematics: Math Madness, Zoology: Cancer in a Nut shell, Botany: Biotech Challenge and Statistics: Global social Media. The programme was conducted by Dandeswar Deka, Secretary, The Science Forum where Subrata Paul, B.Sc. 5th Sem (Physics Hons) delivered welcome speech and Dipjyoti Kalita, B.Sc. 5th Sem (Physics Hons) offered vote of thanks. Dr. B. C. Pathak has delivered a lecture in the seminar hall on the occasion where he explained thoroughly the different aspects of the magazines and highly praised the same. Of course, he also points out some drawbacks of the magazines and put forward some important suggestions for the better upliftment of the magazines. He also requests to conserve the magazines in proper format as every year old editions are replaced by new ones. All the students and teachers of the Science Forum are present making the event a grand success.



ACTIVITIES

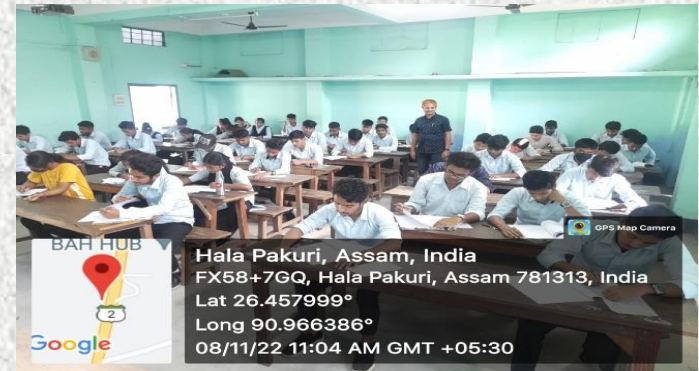
Departmental Seminar cum Group Discussions



A Seminar Cum group discussions was held on 17-10-2022 in the seminar hall among the BSc-5th Semester honours students. The students presented PPT on different topics which make them accustomed with the way of presentations. The group discussions held among them make them encouraged to face different competitive exams in future.

ACTIVITIES

Physics Olympiad 8th November. 2022



Department of Physics, B. H. College organised the 4th Physics Olympiad Examination, 2022 on 8th November, 2022 at B.H.College centre for the students of class IX to XII under Assam Physical Society. All total 185 students had appeared in the exam.

ACTIVITIES

Multiple Choice Question (MCQ) Test



A MCQ test was held 28-09-2022 for the students of BSc- 1st Semester honours. The aim of the test was to identify fast learners and slow learners so that remedial measures can be taken for the slow learner students.

Faculty Exchange Programme



Jyoti Prasad Roy Choudhury, HoD, Physics had some classes in GLC College, Barpeta Road which is situated at distance of 3.5 KM from B. H. College for the BSc-1st and 3rd Sem honours students on 02-09-2022. He taught the topics Mathematical Physics and Electronics. The students were found to be very much attentive and interactive.

ACTIVITIES

Extension Services to Govt. Schools



Dandeswar Deka, Assistant Professor, Department of Physics, B. H. College, Howly rendered his service on 22-11-2022 in Gopinath Bardoloi Memorial High School which is located in Barpeta Road Town and situated at a distance of 3.5 KM from B. H. College. He taught the subject general science to the students of class IX at 12.50 PM and gave an idea of work and energy. 30 nos. of students were present in the class. The students were found to be very attentive and interactive.

The Department of Physics, B. H. College, Howly arranges some classes in Dr. Kandarpa Kumar Das Memorial Girls High School, Barpeta Road, today on 23-12-2022 at 12.50 PM. Mr. Gunindranath Ojah, Headmaster, and teaching staff of the school make all the necessary arrangements for the classes. The school is situated at a distance of 3.5 km from B. H. College. Dandeswar Deka, Assistant Professor, Department of Physics teaches physics to the class-IX(Section : A) students. The topics covered by him are basics of work and energy, techniques of solving problems and some definitions. Jyoti Prasad Roy Choudhury, HoD, Physics, B. H. College also teaches physics of the subject general science to the class-IX(Section : B) students and the topics covered by him are basics of force, Newton's laws of motion and some basic definitions. There are all total 97 students are present in the classes of class-IX. The students are found to be very much attentive and interactive. They are very much eager to learn new things.

PUBLICATION

❖ **Jyoti Prasad Roy Choudhury:** “Optical Properties of PbO/ZnO core/shell dispersed in PVP matrix”, Material Today: Proceedings 46(122122) DOI:10.1016/j.matpr.2020.04.158 (2022).

❖ **Jyoti Prasad Roy Choudhury:** “Modulation of optoelectric properties of ZnO/PbO core/shell Nanocomposite for Memcapacitive application”, Material Science in Semiconductor Processing, DOI:10.1016/j.mssp.2022.106892(2022).

❖ **Jyoti Prasad Roy Choudhury:** “Shell induced optoelectronic characteristics of Chemically synthesized PbO/ZnO core shell Nanocomposite for memcapacitive application”, Physica E-Low dimensional System and Nanostructures, DOI:10.1016/j.physe.2022.115157(2022).

AIRTICLE

❖ **Jyoti Prasad Roy Choudhury:** “Estimation of lattice size and strain of mixed phase Oxide using W.H technique”, an Edited book Frontiers in Basic Physics and Application, 978-81-933014-8-7(2022).

❖ **Jyoti Prasad Roy Choudhury:** “Memristor is a Fundamental Element” an Edited book Frontiers in Basic Physics and Application, 978-81-948719-3-4(2022).

❖ **Jyoti Prasad Roy Choudhury:** “Modulation of Structure and Optical Charecteristics Corresponds to Growth of PbO/ZnO Core/Shell NanoStructure” an Edited book Advanced in Electronic Material, 978-81-948719-8-9(2022).

ACHIEVEMENTS

❖ **Nabaneeta Basak,** Assistant Professor, Department of Physics, B. H. College has been qualified SLET on 18th August 2022.

❖ **Department of Physics** secured 3rd position in Wall Magazine competition, on the occasion of “National Science Day”, organised by B. H. College in association with The Science Forum, B. H. College, Howly on 28th February, 2022.

PROGRAMME / COURSES ATTENDED

❖ **Jyoti Prasad Roy Choudhury :** National Level Five Day faculty development program on “Scilab” in Association With IIT-Bombay (Remote Learning Through Spoken Tutorial),” from 15th - 19th , June 2022 organized by the Department of Science & Humanities.

❖ **Jyoti Prasad Roy Choudhury :** International Online FDP “DIGITAL TOOLS FOR RESEARCHERS AND ICT ONLINE TOOLS IN TEACHING” from 20th July to 24th July 2022 organized by Hindusthan College of Arts and Science, Coimbatore, Tamilnadu.

❖ **Dandeswar Deka :** Faculty Development Programme on ‘Research Methodology & Data Analysis’ organized by Department Commerce, B. H. College, Howly and Department of Statistics, Assam University, Silchar from 31st October to 4th November,2022.

❖ **Dandeswar Deka :** Refresher Course conducted by UGC HRDC, The University of Burdwan, Bardhaman-713104 (WB) from 1st December to 14th December, 2022 having grade A⁺.

Results of B.Sc. of the Year 2022

Department of Physics

List of B.Sc. Passed Students in the Year-2022

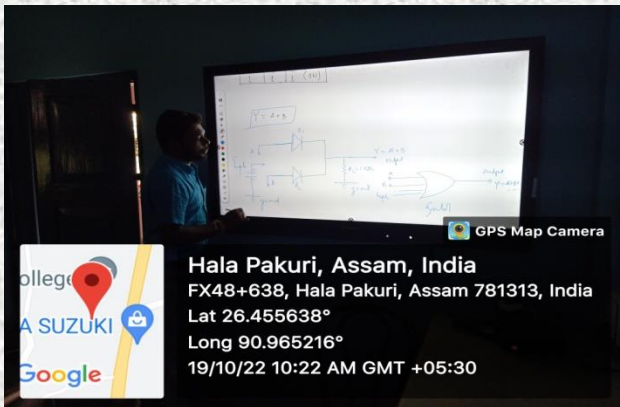
Sl. No.	Name of the student	CGPA
1.	Aminul Choudhury	7.68
2.	Arobinda Roy	7.42
3.	BappiMallik	7.65
4.	Bikramjit Das	7.45
5.	Dengkwan Rani Muchahary	7.53
6.	Ganesh Goyary	7.89
7.	GwhwmBasumatary	7.18
8.	Hemanga Das	7.73
9.	HimakshiNath	7.85
10.	HirakJyoti Ray	7.93
11.	KabirHussain	8.27
12.	Mafidul Islam	7.34
13.	Mehadi Hassan	7.69
14.	MeheebubYeahminur Rahman	7.73
15.	Minhaz Al Hussain	8.14
16.	PayelSaha (Topper)	8.38
17.	PranjitDev	8.14
18.	Prantik Das	7.69
19.	Ruhul Amin	7.95
20.	Sandeep Nath	8.18
21.	SurajPandit	7.68
22.	ThulungaBasumatary	8.23
23.	UrmilaGoyary	7.62
24.	Usha Rani Swargiary	7.14

PHOTO GALLERY

Department of Physics



Students are attending the computer lab to gain his/her knowledge in computer program in Python.



Classes using interactive Panel.



Students are busy in Practical class in Physics Honours Laboratory



Students are busy in Practical class in Physics Laboratory.

Faculty Members of Physics Department



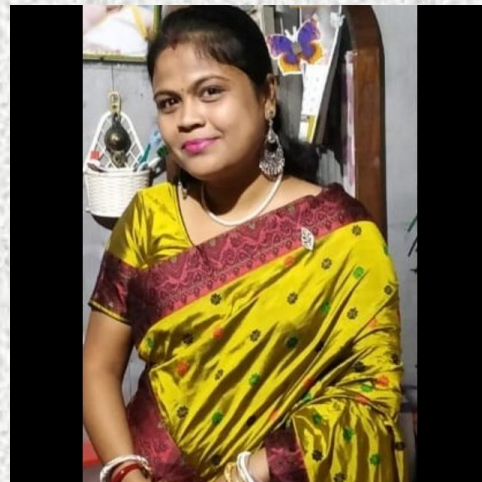
Jyoti Prasad Roy Choudhury
HoD, Physics



Sanatan Kumar Nath



Dandeswar Deka



Nabaneeta Basak