



Department of Physics' Profile

BASIC INFORMATION:-

Year of Establishment: 1937

Names of Programmes/Courses offered: B. Sc Physics Honours and General

Faculty profile:

Name	Qualification	Designation	Specialization	Date of Joining	Contacts
Dr. M. Lyndem	M.Sc, Ph. D	Associate Professor	Soft Condensed Matter Physics	1.05.1997	marplielynd@gmail.com
Dr. L. Kurbah	M.Sc, Ph.D, NET	Associate Professor	Condensed Matter Physics	26.04.2001	kurbah88@gmail.com
Mr. B.L. Giri	M.Sc, NET	Assistant Professor	Nuclear Physics.	1.06.2006	brighterson@gmail.com
Dr. M. Ram	M.Sc, Ph.D, NET, GATE	Assistant Professor	Material Science	1. 07.2022	mahesh.ram.933@gmail.com
Dr. I. Sawkmie	M.Sc, Ph.D	Guest faculty	Condensed Matter Physics	1.09.2021	ivansawkmie@gmail.com
Dr. S. Adhikari	M.Sc, Ph.D	Guest faculty	Raman Spectroscopy	1.04. 2022	smriti.adhikari21@gmail.com

Number of teaching posts

Post	Sanctioned	Filled
Professors	0	0
Associate Professors	2	2
Assistant Professors	2	2
Guest Faculties	2	2

No of Students in the Department (As on 2022)

Year	2 nd Semester	4 th Semester	6 th Semester	Total
2022	40	24	34	98

DETAILS OF INFRASTRUCTURAL FACILITIES:

1. Class room equipped with LCD Projector
2. Internet Facilities with Wi-Fi
3. Well Equipped Laboratory
4. Big Working tables for experiments with power plug point connections.
5. Computer Lab with printing facilities
6. Optics-Lab (Two)
7. Departmental Library with plenty of text books, reference books and journals.
8. A separate room for confidential works

WHAT IS THE DEPARTMENT PROUD OF?

- 1. Students' Results:** The excellent performance by the students in the University Examinations in many years has been the tradition and pride of the Department. In almost every year, the top position in the merit list is secured by the students of our Department. The results of the B.Sc. Physics Honours Final Year Examination from 2022 are given below, while the previous results is displayed in menu of the Department's home page:-

2022

No. of Students Appeared	: 34
No. of Students Passed	: 33
No. of 1st class	: 33
No. of 2nd class	: NIL
No. of Simple Passed	: NIL
Departmental Pass Percentage	: 97.05%
No. of Position in the Merit list	: 08
Position Holders:	
1 st position: S Debala Devi	: 94.75%
2 nd position: Suman Barua	: 93.25%
3 rd position: Nehal Rai	: 90.00%
4 th position: Shristi Chakraborty & Senorita Benedict	: 88.25%
7 th position: Hiinyo Antun	: 86.25%
8 th position: F Lalmuanpuia	: 86.13%
9 th position: Chandana Chakraborty	: 85.88%

- 2. The Alumni:** The department takes pride in its well placed and successful alumni. Majority of the students who passed out from the Physics Department, St. Edmund's college have climbed up the career ladder and most of them are well placed at the top. Some are faculties and heads of various institutions of repute both in the country and abroad. Some of them are holding various positions in the government. The students who passed out in recent years are pursuing their studies or involved in research at different universities and institutes in India and abroad. Here we give the list of some of those:

1. (Late) Prof. Ramendu Bhattacharjee, former Pro V. C, of Assam University, Silchar
2. Prof Joydeep Dutta, Chairperson, Functional materials at KTH Royal institute of Technology Stockholm, Sweden

3. Prof. Subal Kar, retired HoD Institute of Radio Physics & Electronics, University of Calcutta
4. Col (retd) Proloy Sengupta, Retired Colonel, Corps of Signals
5. Dr. Nabo Kumar Chaudhury, Scientist, INMASS, DRDO, Delhi
6. Joydeep Roy Choudhury, Director Technomedia Solutions, Bangalore
7. Dr. Bruno D Cajee, Deputy Director, Directorate of Higher & Technical Education, Govt of Meghalaya, Shillong
8. Shah Zamal Ahmed, Sr. Engineer, M/S Bharat Electronics Ltd.
9. Prof. Ayon Bhattacharjee, former HoD, Physics, NIT Meghalaya.
10. Dr. Alestine Mawrie, Assistant .Professor, IIT, Indore

There are many more prominent academicians, scientists, high ranking government officials, etc., dead and alive whose names are not included as the list will become endless.

3. The Star College Scheme Award: In 2009 the Department was awarded the *Star College Scheme* from the *Department of Biotechnology, Ministry of Science and Technology, Government of India*. Under this scheme all the selected departments received a grant for 12 lakhs each. This scheme was of great help in the upgradation of the laboratory facilities and equipments.

4. Visits by Eminent persons and Scientists: Many distinguished scientists and eminent persons have visited the Department. Those include:

1. India's Physics' Nobel laureate, **Sir C.V. Raman** had visited the college and inspected the Department laboratory in the year 1951-52.
2. In 1974, a renowned Physicist and the former Vice Chancellor of Gauhati University, Prof. K.P. Pathak, visited the Physics Department.
3. Prof. M.G. K Menon a renowned Nuclear Scientist, former Scientific Adviser Govt. of India, visited St.Edmund's College in 2006 and delivered a popular lecture on Cosmic Rays.
4. A distinguished Physicist Prof. Subal Kar, (ex-student) retired Head of the Department, Institute of Radio Physics and Electronics (IRPE), University of Calcutta, had visited the department on the 13th of May, 2010 in connection with an Invited Guest Lecture organized by the Department.
5. Prof. Amar Jyoti Choudhury, Pro. V.C, Tezpur University, and Ex. V.C. Gauhati University, had visited the department on the 1st of July, 2010 in connection with an Invited Guest Lecture organized by the Department on the topic: "*The Bonsai of Materials And its Wonders*"
6. Padmashri Dr. Chaitanyamoy Ganguly, International Atomic Energy Agency, Vienna, Austria had visited the department in and present a talk in the college on the Topic: "*Prospects and Challenges of Nuclear Power and Related Cycle*" in 2012

And there are many more guests which are not included here.

HOW IS THE DEPARTMENT HELPING AND SUPPORTING THE STUDENTS:-

- 1. Mentoring:** Mentoring is an essential part and an immensely useful practice that characterizes the academic cycle of St. Edmund's College. This unique annual practice not only enhances the academic performance of the students but also helps them in building and

maintaining a confident approach towards challenges. The limitations, if any, regarding the methods of teaching-learning, administration or any other possible departmental aspects may also be understood and analyzed through Mentoring. The feedbacks in relation to academic and related matters are obtained by collecting information through mentoring forms distributed to the Physics Honours students. Each student in the Physics Department is allowed to interact with one of the teachers of the Department. Possible measures, wherever necessary, are suggested to the concerned students. All members of the Department are involved in the Mentoring process of the Department.

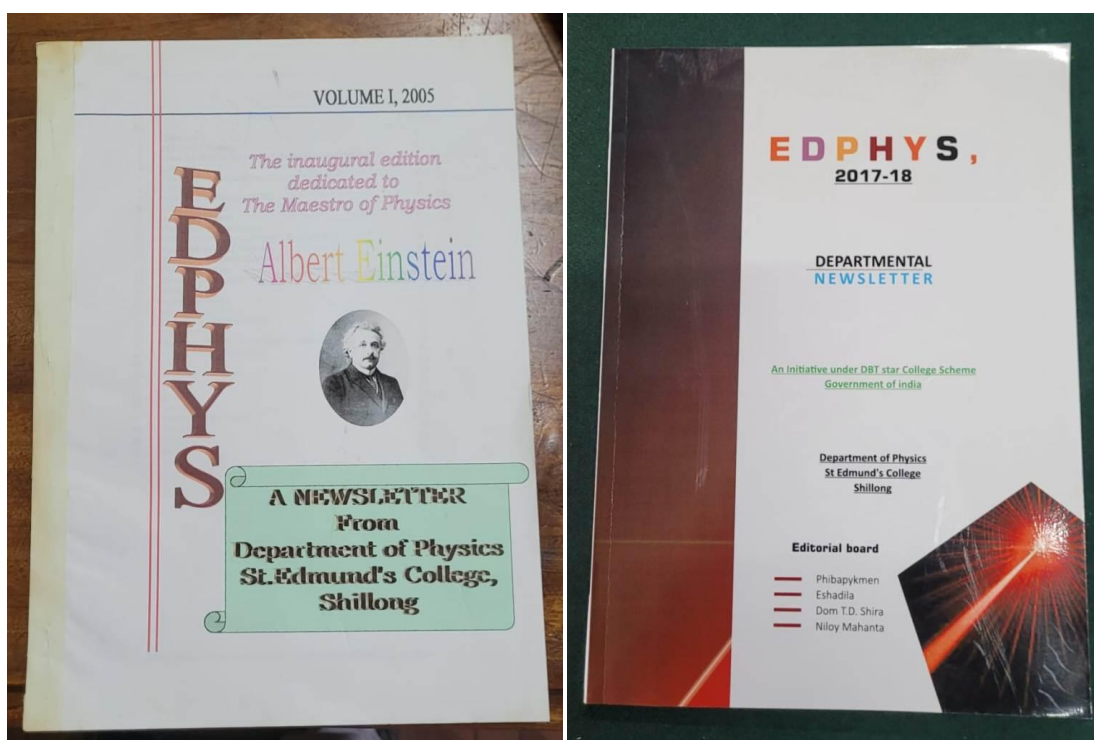
- 2. Students' seminar:** The Department encourages and assists the students of the Department to attend seminars/talks organized by St. Edmund's College or other professional academic Institutions. Besides these, the department used to conduct a student's seminar every year presented by the final semester students of the department. This Students' seminar was started in the year 2007 at the initiative of Dr. M. Lyndem, which was the first of its kind amongst the undergraduate colleges of NEHU. One of the objectives of this student's seminar is to train them in the presentation of ideas in public, be it in conferences, seminars, workshops etc. in their future careers. In one period of forty five minutes, every week, two students would give a seminar talk in fifteen minutes each on any topic related to Physics followed by five minutes of interaction.
- 3. Department Library:** The Department of Physics has been maintaining its own Departmental library to cater to the need of Physics Honours Students. The library contains many textbooks and reference books and journals. The books are issued to honours students only and operated under a Teacher in-charge.
- 4. Students' Educational Visits to Industrial Centers, Research Institutes, Universities, etc:** The Department used to organize visits for the students to different institutes, universities, Industrial centres, etc to give the students firsthand knowledge of how research is done and exposure to the research environment so that it will stimulate excitement and interest to pursue research in their career. The Industrial visits help them in understanding the working conditions in the manufacturing and industrial units and the machines and equipments used. The followings are some of the visits undertaken by the department:
 1. An educational visit to IIT, Guwahati, for the 2nd and 3rd year Physics Honours students, on 9th of August, 2010
 2. An educational visit to Jadavpur University, Kolkata, the Inter University Accelerator Centre (IUAC), Variable Energy Cyclotron Center (VECC) and the Science City, Kolkata from the 3rd of Dec. to the 8th of Dec.2011.
 3. An educational visit to North Eastern Space Research Applications Centre (NESAC), Umiam, Shillong, on the 23rd of March, 2012.
 4. A Study trip to Mawmluh Cherra Cement Limited, Sohra on 7th July 2014.
 5. A Study trip to CSIR-North East Institute of Science & Technology & Jorhat Science Centre and Planetarium, Jorhat and Numaligarh Refinery Limited, Numaligarh, Assam from 16th to 18th December 2014.

6. A Study trip to Myntdu-Leskha Hydro Electric Project, Jaintia Hills, Meghalaya by the 4th and 2nd semester students on 17th December 2016.
 7. An educational visit for the 3rd year students of Physics Honours, 2016, were taken to Centre of Plasma Physics-Institute of Plasma Research, Sonapur, Assam, on the 2nd of November, 2016
 8. A Study trip to the National Centre for Seismology and Meteorological Centre, 3rd Mile, Upper, Shillong, on the 11th of December, 2012 & 27th-Oct 202.
- 5. Student's Projects:** In order to enhance the skills of the students, make them independent learner and build their capacity for doing research in future, the department from time to time facilitates and undertakes projects for the students. The followings are some of those projects:-
1. Inter University Accelerator Centre Summer Project program, 2016
Student: Mr. Immanuel Malsawmlien, B.Sc. 6th sem, physics honors,
Title: "*Remote-Controlled Gain and Threshold Setting of Silicon Strip Detector*"
Supervisor: Dr. Mohan Kumar, IUAC, New Delhi.
Date: 1st June to 28th June 2016
 2. DBT funded Inter Departmental Students' project
Student: Mr. Bijoy Bormon, B.Sc 3rd year Hons Physics
Title: "*Embedded Systems Using Tiva Launch Pad (ARM)*"
Supervisor: Prof. B P Thangkhiew (Electronics Deptt) & Dr. M. Lyndem (Physics Deptt)
Date: August to December 2014
 3. DBT funded Inter Departmental Students' project
Student: Tesilberth. D. Shira, B.Sc 4th sem Physics Honours
Title: "*The Study of the Effect of Temperature of Sucrose and Its Inversion Kinetics*"
Supervisor: Dr. R.Das (Physics Deptt) & Dr. James Wahlang (Biochemistry Deptt)
Date: April 2017
- 6. Guest Lectures/ Webinars/Seminars/ Workshops:** The Department used to invite renowned academicians and alumni and organize talks, lectures, webinars etc. by them for the benefit of the students. The following is the list of some of the recent talks:-
1. Guest Lecture: "*Space Technology In India: Setting Bridge Between Space And Common People*" by Dr. Bijoy Krishna Handique, NESAC on the 29th, March, 2019.
 2. Webinar: "*Looking Beyond The Horizon..*" by Dr. Sandip Paul Choudhry, Department of Physics, NIT, Nagaland, Dimapur, on the 10th of March, 2021.
 3. Webinar: "*Covid-19 And The Role Of Sleep, A Scientist's Perspective*" by Dr. Nabo Kumar Chaudhury, Senior scientist, INMAS, DRDO, Govt. of India, New Delhi on the 9th-July-2021.
 4. Webinar: "*The Character of Randomness in Nature and Its Theory*" by Prof P. Shukla, former acting VC NEHU, and former Head Department of Physics, NEHU on the 26th-Nov-2021.

5. Webinar: “*Materials For Quantum Technology*” by Dr. Alestin Mawrie, Asst. Professor, Department of Physics, IIT Indore on the 12th August 2022.
6. Webinar: “*Understanding Earthquakes*” by Dr. A. C. Lyngdoh, Scientist and Head Central Seismological Observatory, National Centre for Seismology, Shillong on the 6th September 2022.

OTHER INITIATIVES TAKEN BY THE DEPARTMENT

The Departmental Newsletter “EDPHYS”: This Newsletter was first published by the Department in 2005. The editorial board consists of one teaching faculty and student members. It is an annual edition (2019-2021 editions were not published); it contains articles and other write-ups of Physics from the faculty members and students of the Department.

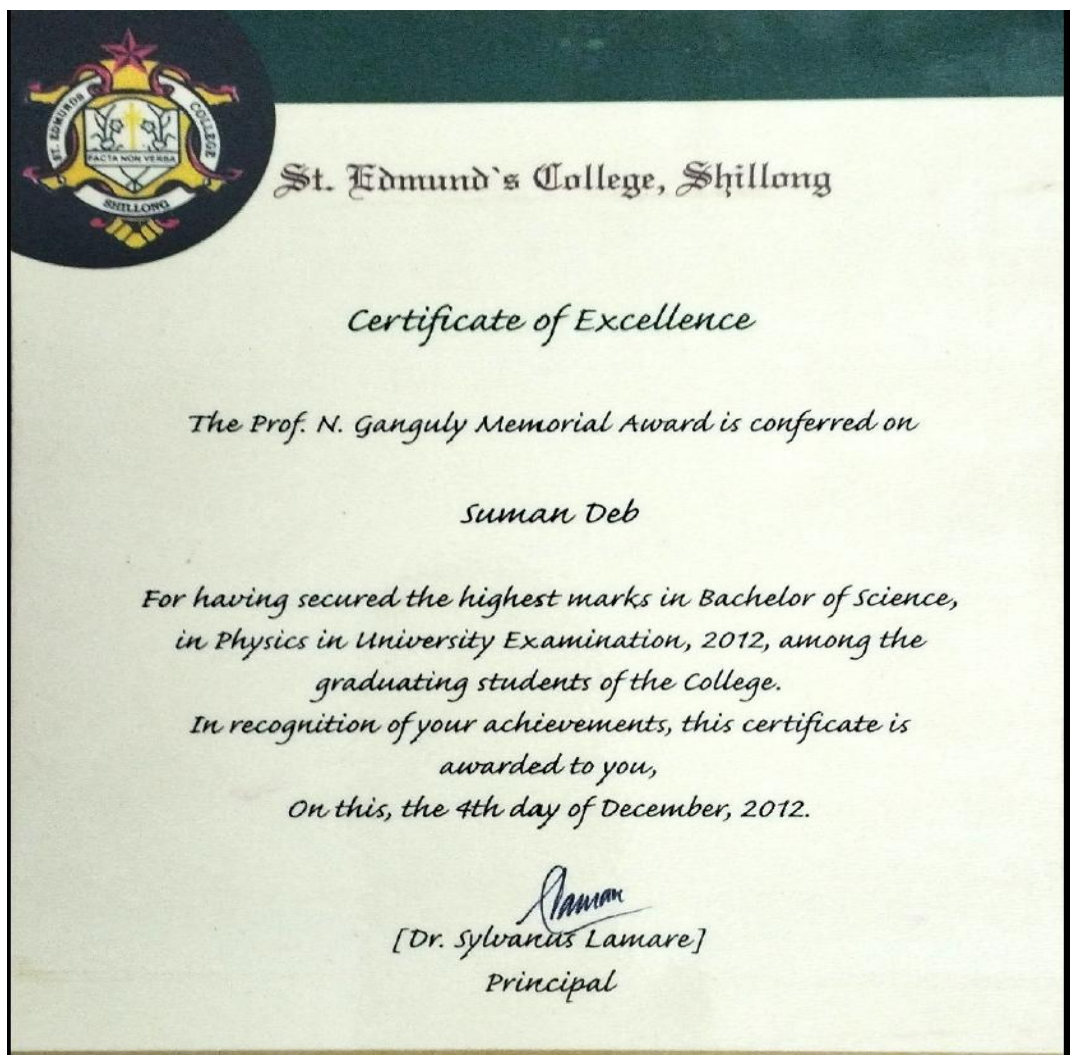


The First Edition and the latest edition of EDPHYS

Late Prof. Ganguly Memorial Award for Physics:

Late Prof. Ganguly Memorial award has been introduced from the academic year of 2012-13. This award is given in memory of the first Head of the Department of Physics, St. Edmund's College, Late Prof. N. Ganguly. Prof. N. Ganguly joined the Department of Physics in 1941 and took charge of the department. Under his leadership he built the department from almost scratch and under his care; the department grew in size with respect to the number of students, number of teachers and infrastructure. Late Prof. Ganguly was a renowned academician and a gifted teacher of Physics. The award is proposed to be given to the student of St. Edmund's College who secures the highest marks in the Final Year University examination in that particular Year. The first Prof. N. Ganguly Memorial Award is conferred on Mr. SUMAN DEB on the 4th of December, 2012, for having secured the highest marks in Bachelor of

Sciences, in Physics in the University Examination, 2012, among the graduating students of the College.



Besides all these there are many other information, activities and initiatives taken by the department which are not included here.

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