

**ACTIVITIES OF DEPARTMENT OF PHYSICS, WOMEN'S COLLEGE UNDER STAR  
COLLEGE SCHEME**

**Period: 31<sup>st</sup> December 2021 to 31<sup>st</sup> March 2022**

**INDUSTRIAL VISITS BY STUDENTS DURING 2021-22:**

Faculties of Physics department has conducted one industrial visit to ONGC Tripura Power Company (OTPC), Palatana, Udaipur, Gomati District, Tripura A visit to ONGCOTPC, Palatana, Udaipur, Gomati District, Tripura for 3<sup>rd</sup> and 5<sup>th</sup> Semester Physics (Major) students on 29<sup>th</sup> March, 2022.

In that industrial visit, Undergraduate students of Physics Honours got some idea about the OTPC which is not only the biggest gas based power plant in the North Eastern region but it is also regarded as a role model for other plants. Physics Honours students are excited very much to visualize this wonderful thermal power plant and learnt a lot regarding the process implemented for the production of electricity.

**VISITS TO NEARBY LABAORATORY OF REPUTED INSTITUTION/RESEARCH INSTITUTE:**

Department of Physics also organized a good number of Laboratory visits under DBT Star College Scheme in which 1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup> Semester Physics (Major) students had visited laboratories of nearby reputed academic institutions to get exposure about various equipments/instruments and their operational techniques.

**A. Date of visit: 10<sup>th</sup> March, 2022**

**Place of visit:** Tripura Institute of Technology, Agartala

**Outcomes:** In this visit, 1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup> semester Physics (Major) students are allowed to visit the electrical, electronics, mechanical and civil labs of Tripura Institute of Technology, Agartala. They got some idea about the functions of various sophisticated instruments/equipments in various labs of TIT and tried to understand the basic physics involved behind the operation of those instruments.

**B. Date of visit: 12<sup>th</sup> March, 2022**

**Place of visit:** ICFAI University, Tripura

**Outcomes:** During this visit, students of 1<sup>st</sup>, 3<sup>rd</sup> and 5<sup>th</sup> sem Physics (Major) were immensely benefitted as they got some excellent hands on demonstration from faculties/staff of Physics Department of ICFAI university about the operation of various instruments/experiments. This visit was helpful for UG students from our college as they have glimpses of various experiments/laboratory works available in M.Sc. physics.

**EXHIBITION/SEMINAR/TRAINING COURSES/WORKSHOP CONDUCTED:**

During 2021-2022, department of physics organized the following workshops and popular talks for the benefits of the students.

- ❖ 03 (three) days workshop on “***Development of Computer Skills (Office Package)***” from 7<sup>th</sup> – 9<sup>th</sup> February, 2022 for 1<sup>st</sup> semester Physics (Major) students. Faculties involved are
  - (i) *Dr. Subrata Deb*, Assistant Professor, Department of Physics,
  - (ii) *Dr. Sudip Debnath*, Assistant Professor, Department of Physics &
  - (iii) *Pusparwng Hrangkhawl*, Assistant Professor, Department of IT.
- ❖ 01 (One) day Hands on Training session on “***Measurement Techniques***” was conducted on 30<sup>th</sup> March, 2022 for 1<sup>st</sup> semester Physics (Major) students by *Smt. Jaya Bhaumik*, Department of Physics.
- ❖ National Science Day (NSD-2022) has been celebrated jointly by the departments of Physics and Chemistry on 30<sup>th</sup> March, 2022 in presence of students from Physics & Chemistry (Honours). In this programme, Mr. Sagnik Saha acted as a resource person and delivered a talk on “**Formation of Universe and it’s expansion with Modern Physics explanation**”.

**POPULAR LECTURE/TALKS ORGANIZED:**

Department of Physics also organized a total of 09 (nine) popular lecture to upgrade/aware the UG students during this tenure under this scheme.

<b>S. No.</b>	<b>Name of the Resource person with designation</b>	<b>Title of the talk</b>	<b>Date</b>	<b>Target Group</b>
1	<i>Dr. Subrata Deb</i> Assistant Professor Department of Physics, Women's College, Agartala	<b>Applications of Physics in Crime Investigation</b>	03/02/2022	1 <sup>st</sup> , 3 <sup>rd</sup> & 5 <sup>th</sup> Sem Physics (Major) Students
2	<i>Dr. Sudip Debnath</i> Assistant Professor, Department of Physics, Women's College, Agartala	<b>Preparation of Ultrathin Films &amp; Its Characterizations</b>	04/02/2022	1 <sup>st</sup> , 3 <sup>rd</sup> & 5 <sup>th</sup> Sem Physics (Major) Students
3	<i>Dr. Mahuya Acharjee,</i> Assistant Professor, Department of Physics, MBB College, Agartala	<b>Molecular Spectra and Algebraic Modelling</b>	11/03/2022	1 <sup>st</sup> , 3 <sup>rd</sup> & 5 <sup>th</sup> Sem Physics (Major) Students
4	<i>Dr. Sharmistha Banik,</i> Assistant Professor, Department of Physics, IASE, Agartala	<b>"Development of Scientific Temper"</b>	25/03/2022	1 <sup>st</sup> , 3 <sup>rd</sup> & 5 <sup>th</sup> Sem Physics (Major) Students
5	<i>Mr. Sagnik Saha,</i> Project Fellow, Indian Institute of Astrophysics, Bangalore	<b>Evolution of Astrophysics</b>	14/03/2022	1 <sup>st</sup> , 3 <sup>rd</sup> & 5 <sup>th</sup> Sem Physics (Major) Students
6	<i>Mrs. Soma Chakraborty,</i> Lecturer in Life Science, District Institute of Education and Training, Kunjaban, Agartala	<b>"Life: A Hybrid of Wrong &amp; Right"</b>	28/03/2022	1 <sup>st</sup> , 3 <sup>rd</sup> & 5 <sup>th</sup> Sem Physics (Major) Students
7	<i>Dr. Rahul Bhattacharjee,</i> Associate Professor, Department of Physics, ICV College, Agartala	<b>Comet: The Cosmic Snow Ball</b>	17/03/2022	1 <sup>st</sup> , 3 <sup>rd</sup> & 5 <sup>th</sup> Sem Physics (Major) Students
8	<i>Dr. Arunabha Saha,</i> Assistant Professor, Department of Physics, ICFAI University	<b>Basic Concepts of Experimental Study of Nuclear Structure</b>	17/03/2022	1 <sup>st</sup> , 3 <sup>rd</sup> & 5 <sup>th</sup> Sem Physics (Major) Students
9	<i>Mr. Sagnik Saha,</i> Project Fellow, Indian Institute of Astrophysics, Bangalore	<b>"Formation of Universe and it's expansion with Modern Physics explanation "</b>	31/03/2022	1 <sup>st</sup> , 3 <sup>rd</sup> & 5 <sup>th</sup> Sem Physics (Major) Students

**EXTERNAL RESOURCE PERSONS INVITED:**

<b>S. No.</b>	<b>Name of the Resource person</b>	<b>Designation &amp; Address</b>	<b>Date</b>
<b>1</b>	<i>Dr. Mahuya Acharjee</i>	Assistant Professor Department of Physics MBB College, Agartala	11/03/2022
<b>2</b>	<i>Dr. Sharmistha Banik</i>	Assistant Professor Department of Physics IASE, Agartala	25/03/2022
<b>3</b>	<i>Mr. Sagnik Saha</i>	Project Fellow Indian Institute of Astrophysics, Bangalore, India	14/03/2022 & 31/03/2022
<b>4</b>	<i>Mrs. Soma Chakraborty</i>	Lecturer in Life Science, District Institute of Education and Training (DIET), Kunjaban, Agartala	28/03/2022
5	<i>Dr. Rahul Bhattacharjee</i>	Associate Professor Department of Physics, ICV College, Agartala	17/03/2022
6	<i>Dr. Arunabha Saha</i>	Assistant Professor, Department of Physics, ICFAI University, Tripura	17/03/2022

## PHOTO GALLERY:



**Photo-1:**Dr. Sudip Debnath delivering a popular talk on Applications of Physics in Crime Investigation



**Photo-2:**Dr. Subrate Deb delivering a popular talk on Preparation of Ultrathin Films & Its Characterizations



**Photo-3:**Dr. Mahuya Acahrjee delivering a popular talk on Molecular Spectra and Algebraic Modelling



**Photo-4:**Dr. Sharmistha Banik delivering a popular talk on Development of Scientific Temper



**Photo-5:**Dr.Rahul Bhattacharjee delivering a popular talk on Comet: The Cosmic Snow Ball



**Photo-6:**Mr. Sagnik Saha delivering a popular talk on Evolution of Astrophysics



**Photo-7:** Mr. Sagnik Saha delivering a popular talk on Formation of Universe and it's expansion with Modern Physics explanation (During the celebration of NSD-2022)



**Photo-8:**Mrs. Soma Chakrabarti delivering a popular talk on Life: A Hybrid of Wrong & Right



**Photo-9:** Dr. Arunabha Saha delivering a popular talk on Basic Concepts of Experimental Study of Nuclear Structure



**Photo-10:** Visit to ICFAI University (Laboratory Visit)



**Photo-11:** Visit to ICFAI University (Laboratory Visit)



**Photo-12:** Visit to ICFAI University (Laboratory Visit)



**Photo-13:** Visit to Tripura Institute of Technology (Laboratory Visit)



**Photo-14:** Visit to Tripura Institute of Technology (Laboratory Visit)



**Photo-15:** Visit to Tripura Institute of Technology (Laboratory Visit)



**Photo-16:** Visit to Tripura Institute of Technology (Laboratory Visit)





**Photo-17:** Industrial Visit to OTPC, Palatana



**Photo-18:** Industrial Visit to OTPC, Palatana



**Photo-19:** 03 (three) days Workshop for 1<sup>st</sup> Sem PSHH (Resource person: Dr. Subrata Deb)



**Photo-20:** 03 (three) days Workshop for 1<sup>st</sup> Sem PSHH (Resource Person: Dr. Sudip Debnath)



**Photo-21:** 03 (three) days Workshop for 1<sup>st</sup> Sem PSHH (Resource Person: Pusparng Hranghawli)



**Photo-22:** During the Hands on training session for 1<sup>st</sup> Sem PSHH (Resource person: Mrs. Jaya Bhaumik)



**Photo-23:** Group Image with one of the Resource Person Dr. Rahul Bhattacharjee, Associate Professor, Dept. of Physics, ICV College



**Photo-23:** Group Image with one of the Resource Person Dr. Sharmistha Banik, Assistant Professor, Dept. of Physics, IASE, Agartalae



Year: 2022-2023

TRAINING PROGRAM/ PROJECT WORK FOR 6<sup>TH</sup> SEMESTER HONS STUDENTS:

A. TRAINING PROGRAM ORGANISED FOR STUDENTS (UPTO 30<sup>TH</sup> JUNE, 2022): NIL

B. PROJECT WORK FOR 6<sup>TH</sup> SEMESTER PHYSICS HONOURS STUDENTS:

**PROJECT BASED ON ELECTRONICS:**

<p><i>Dipa Debnath, 6<sup>th</sup> Sem Physics Honours</i> <b>PROJECT TITLE:</b> FIRE ALARM WITH DISASTER MANAGEMENT</p>	 A photograph of a student with dark hair, wearing a pink shirt and a white vest, leaning over a wooden table. She is focused on working with electronic components on a breadboard. The background shows a classroom setting with a chalkboard and windows.
<p><i>Sharmistha Ghosh, 6<sup>th</sup> Sem Physics Honours</i> <b>PROJECT TITLE:</b> LDR DARKNESS SENSOR ON BREADBOARD</p>	 A photograph of a student with dark hair and glasses, wearing a pink shirt and a white vest, sitting at a wooden table. She is working on an electronics project on a breadboard. The background shows a classroom with a window and a ceiling fan.

*Nikita Debnath, 6<sup>th</sup> Sem Physics Honours*

**PROJECT TITLE:**  
CONSTRUCTION OF HALF ADDER & FULL ADDER



*Anamika Das, 6<sup>th</sup> Sem Physics Honours*

**PROJECT TITLE:**  
LASER SECURITY ALARM SYSTEM



*Prity Debbarma, 6<sup>th</sup> Sem Physics Honours*

**PROJECT TITLE:** SOLAR STREET LIGHT



**N. B.:-** Other students of 6<sup>th</sup> semester Physics Honours are also working for their project to fulfill the criterion of B.Sc. end Semester examinations -2022. Project works carried out by the remaining students' alongwith other activities of the department will be reflected soon.