

# **Report on Student Centric Learning Class Maintained in Academic Year 2020-2021**



**Department of Physics,  
Gour Mahavidyalaya,  
Mangalbari, Malda.**

1. Participation in extension activities: The National Service Scheme is a students' empowerment programme through campus community interaction. Two units are vibrant and active. The N.S.S. volunteers have been working for the upliftment of the village community. They have identified the needs and problems of the villagers of Bhatra, Sahapur, Old Malda Block . They have developed a sense of social and civic responsibilities. They have gained skills in mobilizing community participation. They have placed community interest before individual interest. Programme officers have encouraged the volunteers to participate in the N.S.S activities through corporate l



2. List of Student Seminars Conducted by the department within academic year 2020-2021

Sl No	Student Seminar	Date
1	Seminar Organized by Science Club named "Scientists and their Contributions"	20-05-2021
2	Student Seminar GE2 Student	26-05-2021
3	Student Seminar 3rd Year Student (Honourse & Pass)	27-05-2021
4	Student Seminar 2nd Semester Student	27-05-2021

## Flyer of the Webinar on “Scientists and their Contributions” held on 20-05-21

**WEBINAR ON “SCIENTISTS & THEIR CONTRIBUTIONS”**

**ORGANISED BY**  
SCIENCE CLUB,  
DEPARTMENT OF PHYSICS,  
GOUR MAHAVIDYALAYA, MANGALBARI, MALDA

**PROGRAM INDEX:**  
1. An inaugural speech of Principal Dr. ASHIM KUMAR SARKAR and H.O.D. (Dept. of Physics) Dr. ANIRBAN RAY.  
2. Participant's Presentation.  
3. End of the program with a small gratitude towards the honourable teachers.

Topic: Biography (Brief) Of A Scientist (preferably in the field of physics, from other fields also accepted) plus A Brief Detail in His/Her Any Research with A Suitable Presentation.  
N.B.: Every participant will be provided F.CERTIFICATE.

Webinar Date : 20/05/2021  
Webinar Time : 11:00am  
Webinar Duration : 2:00 hrs  
Webinar Platform : Google Meet

Interested students are requested to send their names along with the topic to the following mail address:  
[scienceclubwebinar@gmail.com](mailto:scienceclubwebinar@gmail.com)

For further details please contact : SCIENCE CLUB SECRETARY : Abhishek Saha , B.Sc. (hons.) 4<sup>th</sup> Sem student G.M → Mob. : 7468013159  
Sougata Ray , B.Sc. (hons.) 4<sup>th</sup> Sem student G.M → Mob. : 8637569277

**Conference Convenor**  
Dr. Arka Chaudhuri  
Ms. Tajnur Khatun

**Student Representatives**  
Sougata Ray  
Abhishek Saha

## Attendance for the Webinar on “Scientists and their Contributions” held on 20-05-21

Sl No	Name	Designation
1	Dr. Anirban Ray	HOD, Dept of Physics
2	Dr. Arka Chaudhuri,	Assistant Professor, Dept of Physics
3	Ms. Tajnur Khatun,	SACT, Dept of Physics
4	Sadhan Biswas	SACT, Dept of Physics
5	Priyanka Chaudhuri	SACT, Dept of Physics
6	Rakesh Sarkar	Assistant Professor, Dept of Mathematics
7	Sougata Ray	Student, 4 <sup>th</sup> Sem, Dept of Physics
8	Abhishek Saha	Student, 4 <sup>th</sup> Sem, Dept of Physics

9	Sanjay Paul	Student, 4 <sup>th</sup> Sem, Dept of Physics
10	Amit kr. Mridha	Student, 4 <sup>th</sup> Sem, Dept of Physics
11	Nikita kr. Paul	Student, 2 <sup>nd</sup> Sem, Dept of Physics
12	Sneha Karmakar	Student, 2 <sup>nd</sup> Sem, Dept of Physics
14	Ratna Paul	Student, 2 <sup>nd</sup> Sem, Dept of Physics
15	Barnali Paul	Student, 4 <sup>th</sup> Sem, Dept of Physics
16	Abhijit Roy	Student, 2 <sup>nd</sup> Sem, Dept of Physics
17	Sneha Nag	Student, 4 <sup>th</sup> Sem, Dept of Physics
18	Kamlesh Paul	Student, 2 <sup>nd</sup> Sem, Dept of Physics
19	Tapan Sen	Student, 4 <sup>th</sup> Sem, Dept of Physics
20	Riju Bhowmick	2 <sup>nd</sup> Sem, Dept of Physics
21	Arundhati Das	2 <sup>nd</sup> Sem, Dept of Physics
22	Pratick Das	Student, 2 <sup>nd</sup> Sem, Dept of Physics
23	Ritam Das	Student, 2 <sup>nd</sup> Sem, Dept of Physics
24	Sumana Ghosh	Student, 2 <sup>nd</sup> Sem, Dept of Physics
25	Alok Mandal	Student, 4 <sup>th</sup> Sem, Dept of Physics
26	Anup Sarkar	Student, 4 <sup>th</sup> Sem, Dept of Physics
27	Satyam Saha	Student, 3 <sup>rd</sup> year, Dept of Physics

28	Afia Anjum	Student, 4 <sup>th</sup> Sem, Dept of Physics
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Pratick Das is presenting

**BLACK BODY RADIATION :**

An object at any temperature is known to emit thermal radiation.

- Characteristics depend on the temperature and surface properties.
- The thermal radiation consists of a continuous distribution of wavelengths from all portions of the electromagnetic spectrum.

At room temperature, the wavelengths of the thermal radiation are mainly in the infrared region.

As the surface temperature increases, the wavelength changes.

Webinar on "Scientist and their Contribution"

Participants: (41)

IN CALL:

- Anirban Ray (You)
- ABHIJIT ROY
- Abhishek Saha
- Achintya
- Afia Anjum
- Alok Mandal

Duration: 0:19:30

Audio: [Microphone icon]

Controls: Delete, Pause, Stop

meet.google.com/dhu-ycca-aqy?authuser=0

Webinar on "Scientist and their Contribution"

IN CALL (14)

- Anirban Ray (You)
- ABHIJIT ROY
- Abhishek Saha
- Amit Mridha
- ARKA CHAUDHURI
- Busy Boy
- kamalesh #mixed up

Turn on captions Present now

Search for anything

meet.google.com/dhu-ycca-aqy?authuser=0

Abhishek Saha is presenting

Figure 1

FRAME A

FRAME B

Newton teaches us that if 'an inertial frame B is moving with respect to another inertial frame A with a velocity  $v = v_x$  (see Figure 1), and a point in spacetime (called an 'event') has the coordinates  $(x, y, z, t)$  in frame A and  $(x', y', z', t')$  in frame B, then these are related as:

$$\begin{aligned} x' &= x - vt \\ y' &= y \\ z' &= z \\ t' &= t \end{aligned} \quad (1)$$

These relations are called Galilean transformations. From this, we see that the time of occurrence of an event is the same in all inertial frames. A more precise way of stating this is that the time interval between two events is invariant.

To retain the validity of Maxwell's equations in all frames, Einstein then showed that the Galilean transformation laws need to be changed.

Webinar on "Scientist and their Contribution"

IN CALL (18)

- You
- Abhishek Saha
- Abhishek Saha
- Abhishek Saha Presentation
- Amit Mridha
- Anup Sarkar
- ARKA CHAUDHURI

Turn on captions Abhishek Saha is presenting



Pratick Das is presenting

### PLANCK'S ASSUMPTION , 1

- The energy of an oscillator can have only certain discrete value  $E_n$ 
  - $E_n = n h f$
  - $n$  is a positive integer called the quantum number
    - $f$  is the frequency of oscillation
    - $h$  is the Planck's constant
- This says the energy is quantized.
- Each discrete energy value corresponding to a different quantum state.
- Each quantum state is represented by the quantum number ,  $n$ .

Webinar on "Scientist and their Contribution"

Duration: 0:22:01

Audio: [Controls]

IN CALL (43)

- Anirban Ray (You)
- Abhijit Roy
- ABHIJIT ROY
- Abhishek Saha
- Achintya
- Afia Anjum

Abhishek Saha is presenting

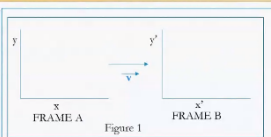


Figure 1

Newton teaches us that if 'an inertial frame B is moving with respect to another inertial frame A with a velocity  $v = vx$  (see Figure 1), and a point in spacetime (called an 'event') has the coordinates  $(x, y, z, t)$  in frame A and  $(x', y', z', t')$  in frame B, then these are related as:

$$\begin{aligned} x' &= x - vt \\ y' &= y \\ z' &= z \\ t' &= t, \dots, \dots, (1) \end{aligned}$$

These relations are called Galilean transformations. From this, we see that the time of occurrence of an event is the same in all inertial frames. A more precise way of stating this is that the time interval between two events is invariant.

To retain the validity of Maxwell's equations in all frames, Einstein then showed that the Galilean transformation laws need to be changed

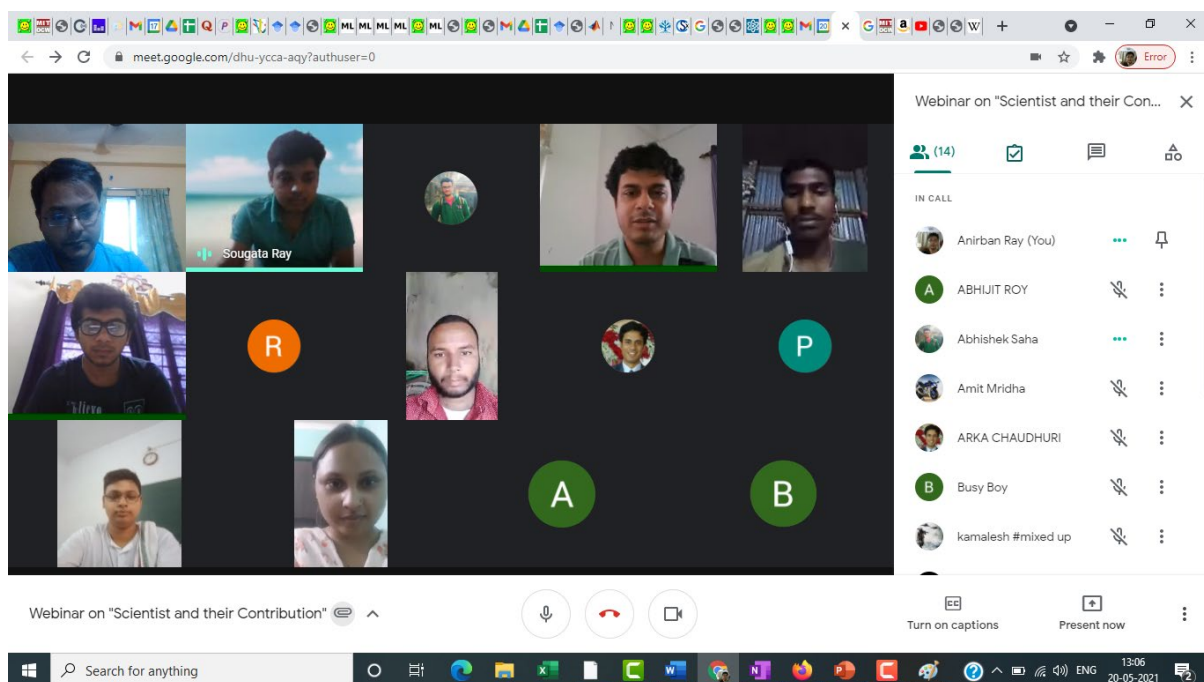
Webinar on "Scientist and their Contribution"

Turn on captions

Abhishek Saha is presenting

IN CALL (18)

- Anirban Ray (You)
- ABHIJIT ROY
- Abhishek Saha
- Abhishek Saha Presentation
- Amit Mridha
- Anup Sarkar
- ARKA CHAUDHURI



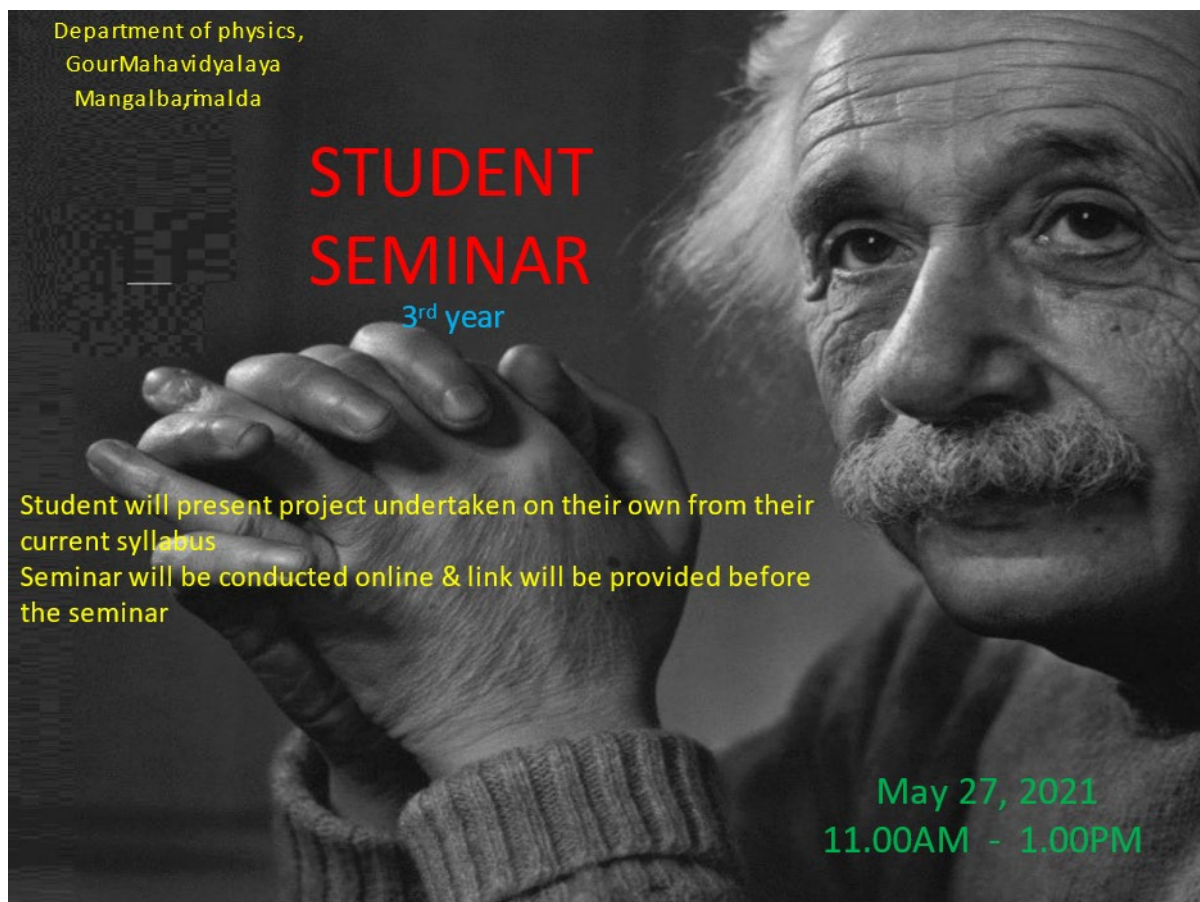
Video-recording of the entire event has been uploaded to YouTube. Link of that video is <https://www.youtube.com/watch?v=Rtn65xc3DDE>

*Anirban Ray*

Dr. Anirban Ray,  
Assistant Professor,  
Department of Physics,  
Gour Mahavidyalaya,  
Mangalbari, Malda



**Flyer for the Students Webinar of the 3<sup>rd</sup> year, Dept of  
Physics, Gour Mahavidyalaya held on 27-05-21**



Department of physics,  
GourMahavidyalaya  
Mangalbarimalda

**STUDENT  
SEMINAR**  
3<sup>rd</sup> year

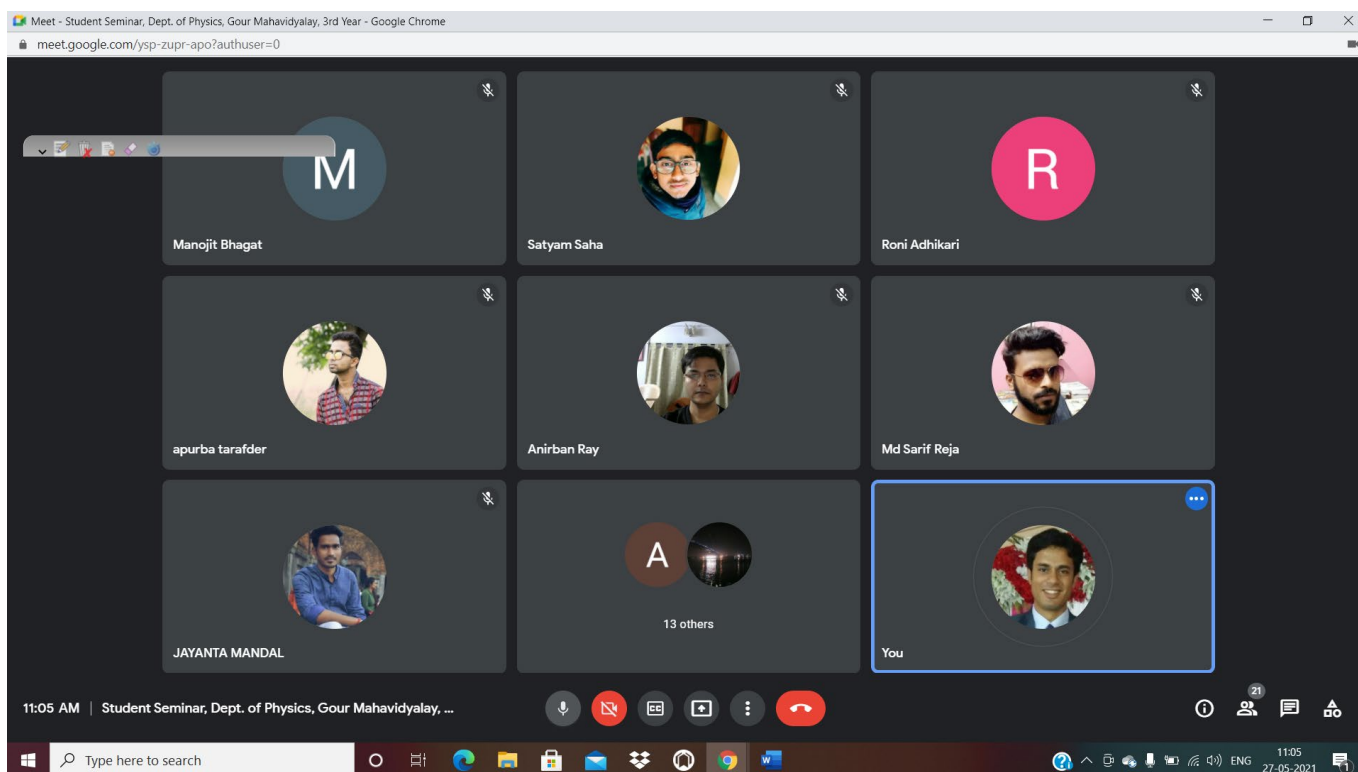
Student will present project undertaken on their own from their  
current syllabus  
Seminar will be conducted online & link will be provided before  
the seminar

May 27, 2021  
11.00AM - 1.00PM

## **Attendance for the Webinar for 3<sup>rd</sup> year held on 27-05-21**

Sl No	Name	Designation
1	Dr. Anirban Ray	HOD, Dept of Physics
2	Dr. Arka Chaudhuri,	Assistant Professor, Dept of Physics
3	Ms. Tajnur Khatun,	SACT, Dept of Physics
7	Apurba Tarafdar	Student, 3 <sup>rd</sup> year, Dept of Physics
8	Bibhash Paul	Student, 3 <sup>rd</sup> year, Dept of Physics
9	Satyam Saha	Student, 3 <sup>rd</sup> year, Dept of Physics
10	Susmita Roy	Student, 3 <sup>rd</sup> year, Dept of Physics
11	Anuska Datta	Student, 3 <sup>rd</sup> year, Dept of Physics
12	Sadhana Paul	Student, 3 <sup>rd</sup> year, Dept of Physics
14	Moumita Haldar	Student, 3 <sup>rd</sup> year, Dept of Physics
15	Manojit Bhagat	Student, 3 <sup>rd</sup> year, Dept of Physics
16	Uday Sutradhar	Student, 3 <sup>rd</sup> year, Dept of Physics
17	Md Sarif Reja	Student, 3 <sup>rd</sup> year, Dept of Physics
18	Roni Adhikari	Student, 3 <sup>rd</sup> year, Dept of Physics
19	Mustafa Kamal	Student, 3 <sup>rd</sup> year, Dept of Physics
20	Debasish Dutta	Student, 3 <sup>rd</sup> year, Dept of Physics
21	Ankita Gupta	Student, 3 <sup>rd</sup> year, Dept of

		Physics
22	Arup Kr Pahari	Student, 3 <sup>rd</sup> year, Dept of Physics
23	Jayanta Mandal	Student, 3 <sup>rd</sup> year, Dept of Physics
24	Prashanta Mandal	Student, 3 <sup>rd</sup> year, Dept of Physics



Meet - Student Seminar, Dept. of Physics, Gour Mahavidyalay, 3rd Year - Google Chrome

meet.google.com/ysp-zupr-apo?authuser=0

Roni Adhikari is presenting

11:10 AM | Student Seminar, Dept. of Physics, Gour Mahavidyalay, ...

Type here to search

Participants: Anirban Ray, Manojit Bhagat, Md Sarif Reja, apurba tarafder, Satyam Saha, Anuska Dutta, Uday Sutradhar, 14 others, You.

Meet - Student Seminar, Dept. of Physics, Gour Mahavidyalay, 3rd Year - Google Chrome

meet.google.com/ysp-zupr-apo?authuser=0

Mustafa Kamal is presenting

11:50 AM | Student Seminar, Dept. of Physics, Gour Mahavidyalay, ...

Type here to search

Participants: Moumita Halder, Manojit Bhagat, taj nur, Mustafa Kamal, Debashis Dutta, Sadhana Paul, apurba tarafder, 15 others, You.

S Susmita Roy is presenting

1/5

Gour MAHAVIDYALAYA

Name : Susmita Roy

Roll : GSPHSA 1901008

Subject : Physics (Honours)

Topic : Mass defect and binding energy of nucleus

Q. What is mass defect and binding energy of nucleus? Explain the binding energy curve of nuclei.

Ans:

**Mass defect:** The difference between the theoretical mass and the actual mass of a nucleus. The binding of a system can appear as extra mass which accounts for the difference.

**Binding Energy:** The energy which holds the nucleons together in a nucleus. The main cause of binding energy is mass defect.

**Expression of binding energy:**

Consider an element with atomic number  $Z$  and mass number  $A$ .

Let  $M$  be experimental mass of element.

$M_p$  = mass of proton

$M_n$  = mass of neutron

Actual mass =  $ZM_p + (A-Z)M_n$

Mass defect = actual mass - experimental mass

$= ZM_p + (A-Z)M_n - M$

This mass is converted into binding energy.

EDIT PDF

SHARE

Anirban Ray

Debashis Dutta

Ankita Gupta

Satyam Saha

Moumita Halder

Manojit Bhagat

BIBHASH PAUL

5 others

12:40 PM | Student Seminar, Dept. of Physics, Gour Mahavidyalay, ...

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**STUDENT SEMINAR ON "THEIR OWN FROM THEIR CURRENT SYLLABUS" HELD ON MAY 26 , 2021**

**Department of Physics,  
Gour Mahavidyalaya,  
Mangalbari, Malda**

# **Student Seminar**

**First Semester**

Student will present project  
undertaken on their own from their  
current syllabus

Seminar will be conducted online and link  
will be provided before the seminar

**MAY 26, 2021  
4 PM-5.30PM**



## ATTENDANCE FOR SEMINAL HELD ON 26-5-2021

Anirban Ray	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
ADITI ROY	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Akash Das	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Aliul Nadab	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
ARKA CHAUDHURI	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Asit Mandal	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Gourab Halder	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Manaj Mandal	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Monalisha Mandal	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Naba Kumar Halder	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Nibedita Roy	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Nisha Das	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Purobi Rajbanshi	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Rohit Kundu	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Rohit Neogi	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
SABNAM SALMA	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Swabriti Dutta	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Swagata Mandal	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
taj nur	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Turbasu Saha	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04
Tüshár Ghösh	5/26/2021 16:11:33	5/26/2021 16:11:37	00:00:04

Student x Student x GURU D x Student x New Tab x Classwo x brachist x (353) 17 x Google x Me x

meet.google.com/ymz-btxp-zxt

Aliul Nadab is presenting

Akash Das and 9 more

4:10 PM

Physics Presentation.pdf - Adobe Reader

File Edit View Document Tools Window Help

12.1 =  $\frac{4\pi\epsilon_0 h^2}{4\pi\epsilon_0 h^2} \dots \dots \dots (2)$

অত্যা,  $\vec{p}_{12}$  হল  $q_2$  আধানের সাপেক্ষে  $q_1$  আধানের অবস্থান  
ভেক্টর, অর্থাৎ  $\vec{p}_{12} = \vec{r}_1 - \vec{r}_2 = r_{12} \hat{r}_{12}$

1.3) দুটি আধানের ওপর ক্রিয়াকারী পারস্পরিক স্থির-তড়িৎ বল সম্বন্ধে  
বিবরণ:- স্বর্ভজ্যে,  $\vec{p}_{21} = \vec{p}_2 - \vec{p}_1 = -(\vec{p}_1 - \vec{p}_2) = -\vec{p}_{12}$   
কিন্তু  $p_{21} = p_{12} =$  আধান দুটির পারস্পরিক ব্যর্থান  $= r$  (ধরি)।  
সুতরাং সমীকরণ (1) থেকে পাই,

Activate Windows  
Go to Settings to activate Windows.

Meeting details

Turn on captions

Aliul Nadab is presenting

Search for anything

16:10  
26-05-2021

whatsappweb, int.search.myway x (1) WhatsApp x Meet - ymz-btxp-zxt

meet.google.com/ymz-btxp-zxt

Nisha Das is presenting

Registration - 12-12-2020

Subject - physics

Meeting details

(23)

MD HASANUJJAMAN

Monalisa Mandal

Naba Kumar Halder

Nibedita Roy

Nisha Das

Purobi Rajbanshi

Rohit Kundu

Rohit Neogi

SABNAM SALMA

Anirban Ray

Aliul Nadab

Manaj Mandal

Tushar Ghosh

Naba Kumar H...

Purobi Rajbanshi

Turbasu Saha

Swagata Mandal

Asit Mandal

Meeting details

Turn on captions

Nisha Das is presenting

Search for anything

Desktop

16:22  
26-05-2021





## ONLINE STUDENTS SEMINAR

An online seminar for 4th semester students of Physics honours of session 2020-2021 has been organised by Dr. Anirban Roy and Sadhan Biswas on **29.05.2021** at **5 PM** through google meet . Google meet link ( <https://meet.google.com/jcm-xfjz-vjj>) has been provided on what's app group. The students have participated actively . The students have presented the topic mathematical method. The participants are

- 1. Sougata Ray**
- 2. Afia Anjum**
- 3. Barnali Paul**
- 4. Abhishek Saha**
- 5. Anup Sarkar**
- 6. Amit Mridha**
- 7. Sanjoy Paul**

The online seminar has been conducted successfully.



# About this call

People

Information

ADD OTHERS



Share joining information

IN CALL



sadhan biswas (You)



Abhishek Saha



Afia Anjum



Amit Mridha



Anirban Ray



Anup Sarkar



Barnali paul



Sanjay Paul



Sougata Ray







3. Practical Projects for students



DC2P 2020-2021

- Stream
- Classwork**
- People
- Grades



BSc Semester-I Examination, 2020 D...	Due Apr 1, 3:00 PM
To determine the Youngs Modulus of ...	Posted Mar 26
To study the motion of a spring and c...	Posted Mar 26
Determination of the Youngs Modulu...	Posted Mar 26
Determination of the moment of iner...	Posted Mar 25
DETERMINATION OF THE MODULUS ...	Edited Mar 25

Class is archived. Restore it to add or edit anything.

Restore

All topics



BSc Semester-II Examination, 2020 D...

Due Jan 26, 3:30 PM

Refractive Index

Refractive index of prism

Edited Jan 15

Refractive index

Posted Jan 15

Angle of the prism

Mechanical Levelling

Posted Jan 15

Optical Levelling 1

Posted Jan 15

Optical\_leveling

Posted Jan 15



Angle of the prism

Posted Jan 15

Class is archived. Restore it to add or edit anything.

Restore

Newton's Ring-Video3	Edited Jan 15
Newton's Ring-Video-2	Posted Jan 15
Newton's Ring-Video-1	Posted Jan 15
Newton's Ring Experiment	Posted Jan 15





Class is archived. Restore it to add or edit anything.

Restore



B.Sc Physics Examination Semester-III	Due Mar 30, 3:00 PM
Assignment:2 Newton's Method	Posted Mar 12
Assignment:1	Due Feb 23, 11:59 PM
Bisection Method Video	Posted Feb 19
Bisection Method	Posted Feb 19



Class is archived. Restore it to add or edit anything.

Restore

All topics



B.Sc Physics Semester-III Exam 2020

Due Mar 31, 10:00 PM

Class Note

Class On Exam

Posted Mar 27

Adder

Half-Adder and Full Adder

Posted Mar 27

Latch

JK Flip Flop

Posted Mar 27

SR-Latch



Posted Mar 27

Class is archived. Restore it to add or edit anything.

Restore

Bread-Board Description

Posted Mar 27



Class is archived. Restore it to add or edit anything.

Restore



Stream

Classwork

People

Grades

All topics

Create

BSc Semester-I Examination, 2020 G...

Due Apr 1, 3:00 PM

Bar pendulum experiment	Posted Mar 26
Data to determine acceleration due t...	Posted Mar 26
data To determine spring constant (k...	Posted Mar 26
Calculation of k and g	Posted Mar 26
Data for moment of inertia experiment	Posted Mar 26
Rigidity modulus	Posted Mar 24
Young modulas experiment data	Posted Mar 24
Moment of inertia experiment	Posted Mar 24
to determine oMoment of inertia of a...	Posted Mar 24

View more



Stream

Classwork

People

Grades

Create



4th sem photoelectric effect

Posted 11:35 AM

photoelectric effect sem 4

Posted 11:29 AM

B.Sc Physics Examination Semest... 2

Due Mar 31, 3:00 PM

Platinum resistance experiment vedi...

Posted Mar 28

Platinum resistance experiment vedi...

Posted Mar 28

Platinum resistance experiment vedi...

Posted Mar 28

Thermal conductivity of glass in for...

Posted Mar 27

Thermal conductivity of a bad condu...

Posted Mar 23

To determine thermal conductivity o...

Posted Mar 23

Problems

Edited Jan 12

View more

Anirban Ray

AK.

Chaudhuri

