



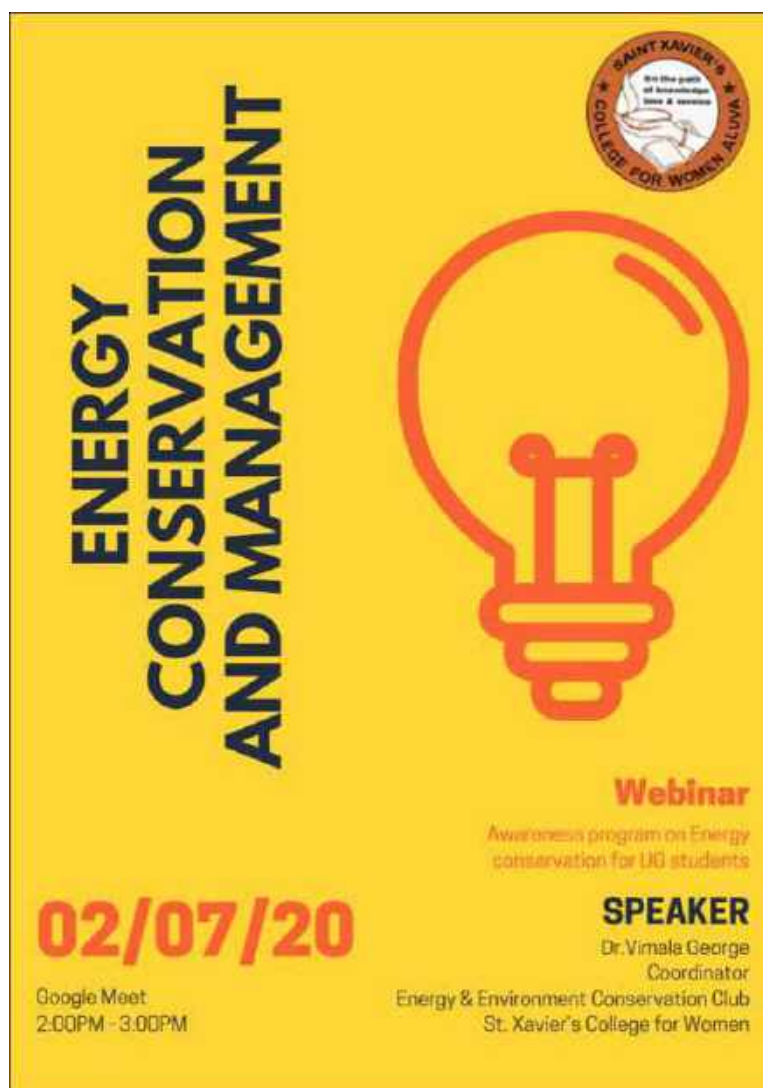
ST. XAVIER'S COLLEGE FOR WOMEN, ALUVA
REACCREDITED BY NAAC WITH A GRADE (CGPA 3.33)
ISO 9001-2015 CERTIFIED

DEPARTMENT OF PHYSICS
ANNUAL REPORT
2020-2021

1. WEBINAR ON ENERGY CONSERVATION AND MANAGEMENT 2/7/2020

A webinar on *ENERGY CONSERVATION AND MANAGEMENT* was conducted by the department of physics on 2/7/2020 through Google Meet. Dr.Vimala George, the head of Energy Conservation Club of St. Xavier's College for Women, Aluva, led the webinar for the students of the physics department. The students as well as the faculty of the physics department participated in the session. A total of 33 participants were present for the webinar.

Brochure



The brochure is a vertical yellow poster. On the left, the title "ENERGY CONSERVATION AND MANAGEMENT" is written vertically in large, bold, black capital letters. In the top right corner, there is a circular logo for Saint Xavier's College for Women, Aluva, with the motto "In the path of knowledge, love & service". To the right of the title is a large, stylized orange outline of a lightbulb. Below the lightbulb, the word "Webinar" is written in bold red. Underneath that, in smaller black text, it says "Awareness program on Energy conservation for UG students". At the bottom left, the date "02/07/20" is written in large, bold, red numbers, with "Google Meet 2:00PM - 3:00PM" in smaller black text below it. At the bottom right, the word "SPEAKER" is written in bold black, followed by "Dr. Vimala George, Coordinator, Energy & Environment Conservation Club, St. Xavier's College for Women" in smaller black text.

Online Session

Why do we conserve energy?

- Lack of Resources
Oil – 45 years
Gas – 65 years
Coal – 200 years
(At the present rate of consumption)
- Emission of Green House Gases

Fluorescent & LED Lamps

Type	Watts	Lumens	Life
T 12 with magnet Ballast	53 W	2450	8000 hrs.
T 12 with Electronic Choke	44 W	2450	8000 hrs.
T8	36 W	2350	8000 hrs.
T5	28 W	2900	15000 hrs.
T8(LED)	20 W	2000	50000 hrs.

Images of T5 and T8 lamps are shown below the table.

Link for the meeting recording:

<https://drive.google.com/file/d/1umEVVhKURTVyiCYAZODbjjKmeYiJaY8i/view?usp=sharing>

Feedback

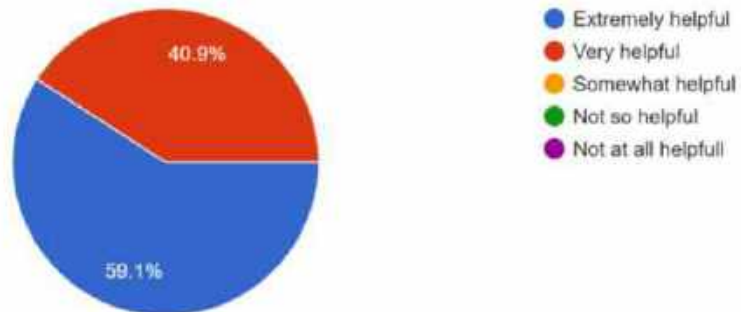
Full Name

22 responses



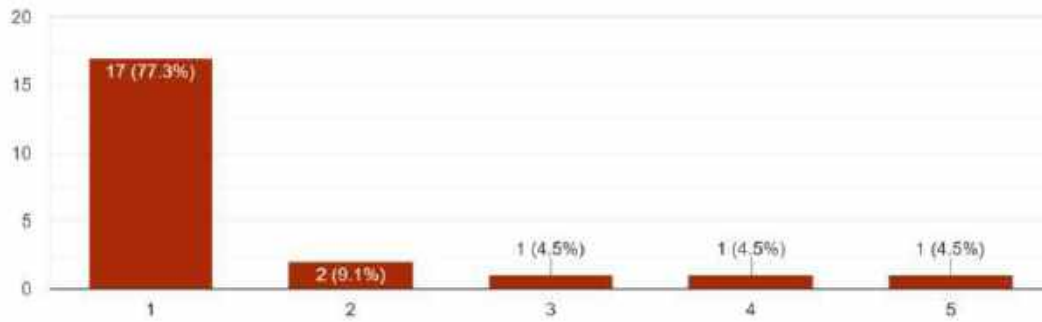
How helpful was the webinar for you?

22 responses

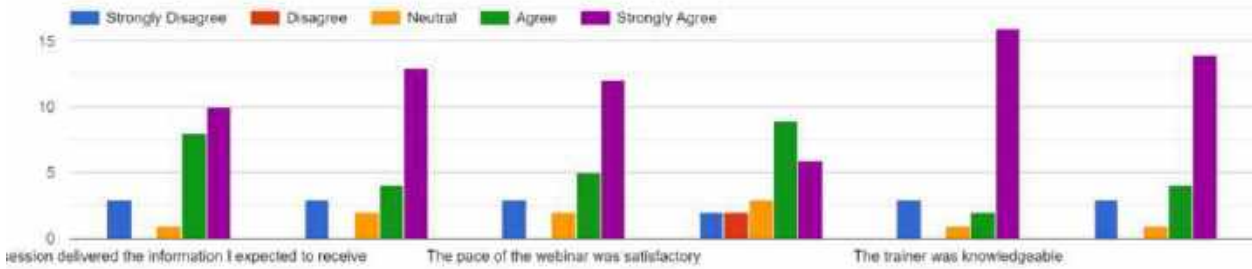


How relevant do you think the topic of discussion was?

22 responses

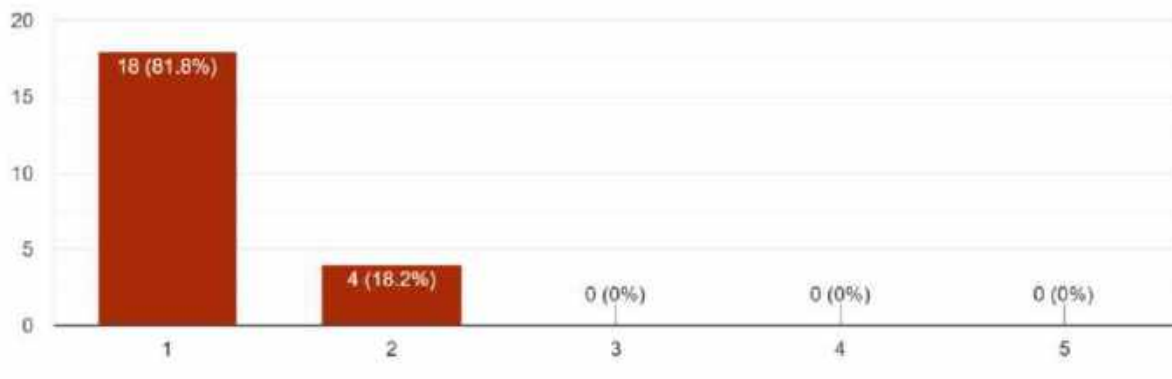


Please rate your satisfaction with the content of the webinar by indicating your level of agreement or disagreement with each of the following statements.



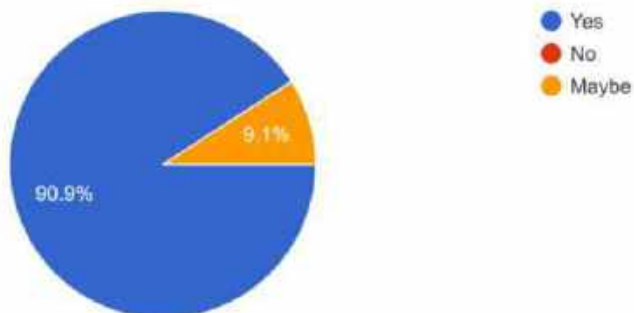
How would you rate the session ?

22 responses

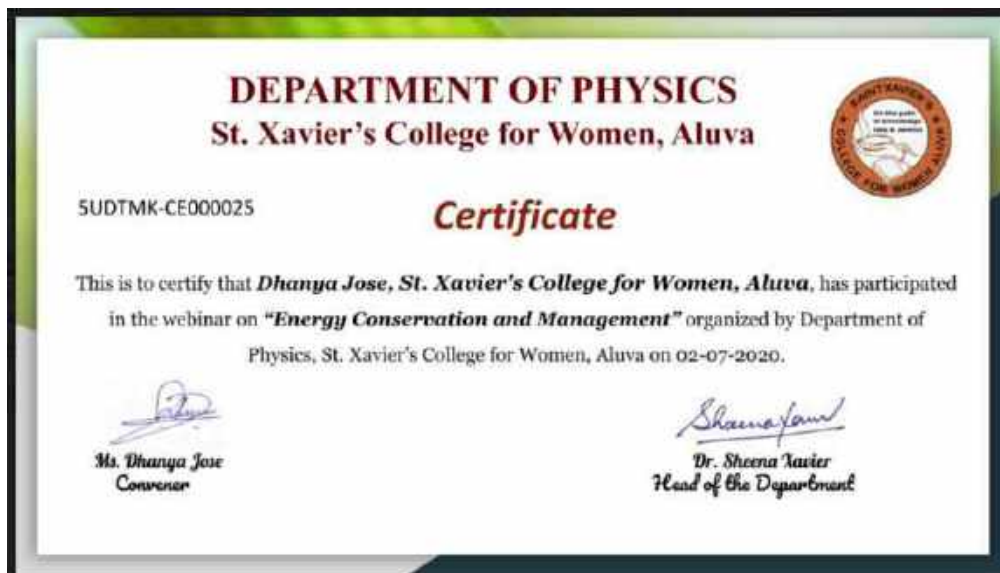


Would you be willing to participate in similar sessions in future?

22 responses



Participation Certificate Sample



2.INTERNATIONAL WEBINAR ON SUPER RESOLUTION MICROSCOPY 17/7/2020

On 17/07/2020 the Department of Physics organized a one day *International Webinar on Super Resolution Microscopy* via Google meet for college students, research scholars and faculty. *Dr.Ani Augustine Jose, Postdoctoral Research Fellow at Institut d'Optique d'Aquitaine, University of Bordeaux, France* was invited as the speaker for the session planned. Rev Sr. Dr. Geege Joanamma Xavier gave the presidential address during the meeting.

A total of 73 participants were present during the live session. The session consisted of an hour long talk on the topic Super Resolution Microscopy and was followed by an interactive session with the audience. The speaker also imparted motivation to all the students present during the session by sharing his life experiences. Feedback form was shared with the participants and e-certificated where distributed. The session was conducted under the coordination of Dr. Vimala George, Dr. Sujatha N.V. and Ms. Dhanya Jose along with the committee members consisting of Dr. Sheena Xavier, Ms. Leena Deenja N G and Ms. Joissy Mathew. The previous faculty members of the department also showed great enthusiasm and support for the event.

Brochure

ST. XAVIER'S COLLEGE FOR WOMEN, ALUVA
KERALA, INDIA - 682102
Be Accredited by NAAC with A Grade & Affiliated to Mahatma Gandhi University

POST GRADUATE DEPARTMENT OF PHYSICS & RESEARCH CENTRE
Organises

International Webinar on Super Resolution Microscopy


Ani Augustine Jose
Postdoctoral Research Fellow
Institut d'Optique d'Aquitaine
University of Bordeaux, France

VIA GOOGLE MEET
No Registration Fee

JULY 17, 2020 +
STARTS AT 9:30 A.M.

REGISTRATION LINK:
<https://forms.gle/mEQvGczLnLAUdyf5>

ABSTRACT:
Fluorescence microscopy has become an indispensable tool for examining a wide variety of biological processes, tissues, pathways and dynamics in living cells, and whole animals, but the resolution of light microscopy is limited by the laws of diffraction to a few hundred nanometers, limiting most cellular details. The limits to spatial resolution were first elucidated and described by Ernst Abbe in the late 1800s. This physical barrier restricted the optical resolution to roughly 250 nm and was previously thought to be insurmountable. But the development of super-resolution microscopy, which was awarded the 2014 Nobel Prize in Chemistry, bypasses the diffraction limit and enabled the visualization of subcellular organization with unprecedented detail. In this talk, we will cover the fundamental concepts governing fluorescence microscopy and the current state of the art of super-resolution microscopy techniques and their applications.

Patron: Rev. Sr. Dr. Geege Joanamma Xavier (Principal)

Head of the Department: Dr. Sheena Xavier

Coordinators: Dr. Vimala George
Dr. Sujatha N. V.
Ms. Dhanya Jose

Organizing Committee: Dr. Sheena Xavier
Ms. Leena Deenja N G
Ms. Joissy Mathew

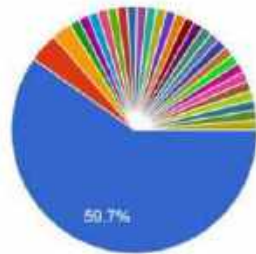
Contact Details:
physics@stxaviersaluva.ac.in
vimalageorge@stxaviersaluva.ac.in

Online session

Feedback

Institution

77 responses

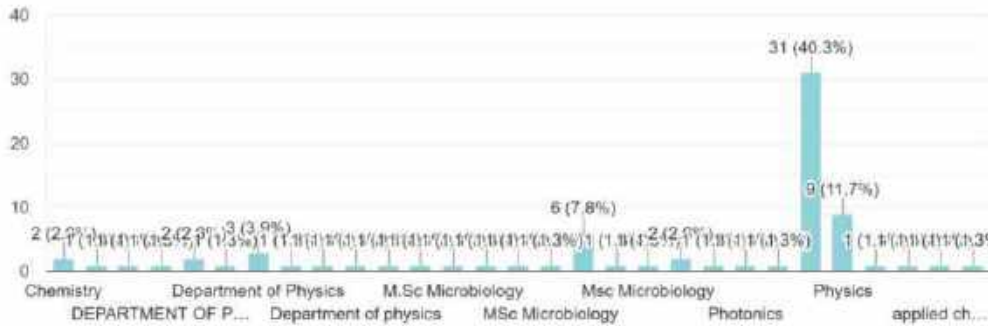


- St. Xavier's College for Women, Aluva
- CUSAT
- MES COLLEGE MARAMPALLY
- SNM College Malankara
- St.Thomas College Kozhenchery
- St.Teresa's College Ernakulam
- Cochin University Of Science And Tec...
- Morning star home science college An...

▲ 14 ▼

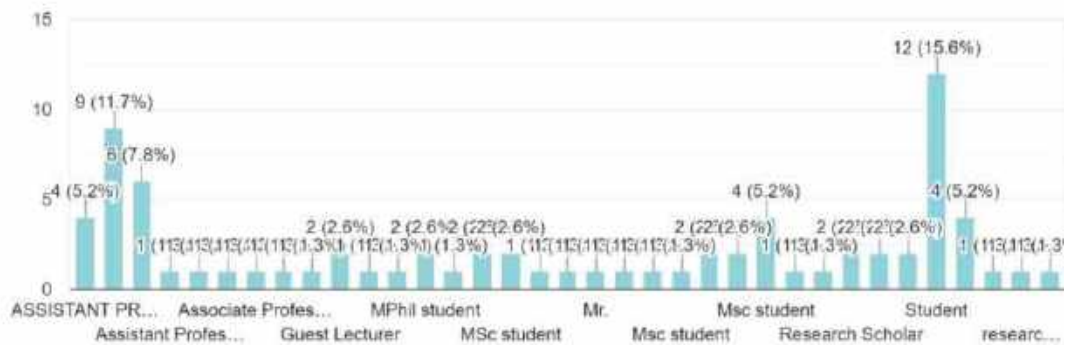
Department

77 responses



Designation

77 responses

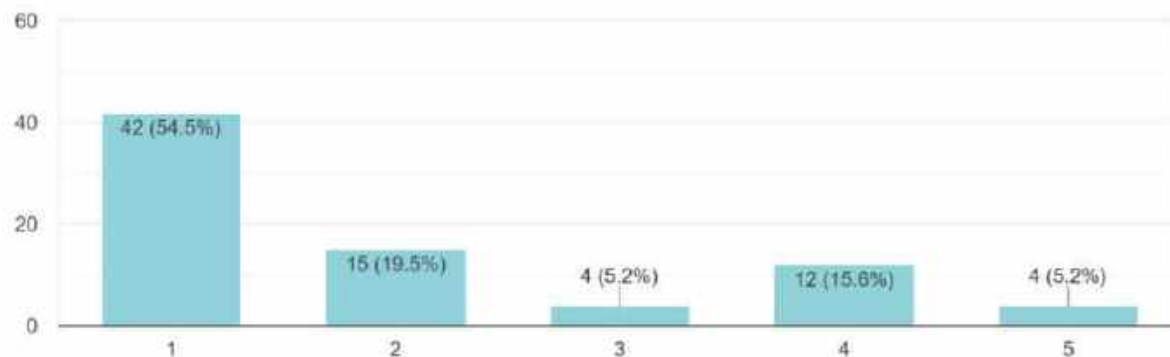


Please rate your satisfaction with the session for each of the following statements.

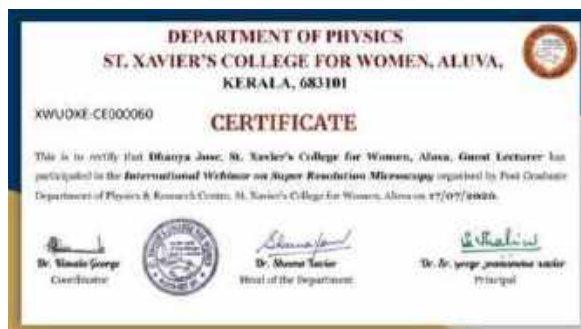


How would you rate the session ?

77 responses



Certificate format:



3.INTERNATIONAL WEBINAR ON COVID-19 AND MENTAL HEALTH : CHALLENGES AND IMPLICATIONS 7/08/2020

On 07/08/2020 the Department of Physics in association with the Internal Quality Assurance Cell of St.Xavier's College for Women, Aluva organized a one day *International Webinar on Covid - 19 and Mental Health: Challenges and Implications* via Google meet for college students and faculty. *Dr. Henry Poduthase, Associate Professor and Director, Graduate Social Work Program, West Texas A&M University* was invited as the speaker for the session. Rev Sr. Dr. Geege Joanamma Xavier gave the presidential address during the meeting.

A total of 141 participants were present during the live session. The session consisted of an hour long talk on the topic *Covid - 19 and Mental Health: Challenges and Implication* and was followed by an interactive session with the audience. The session focused on the importance of mental health, the factors affecting mental health, its symptoms, remedy etc. Feedback form was shared with the participants and e-certificated where distributed. The session was conducted under the coordination of Dr. Sujatha N.V. and Ms. Dhanya Jose along with the committee members consisting of Dr. Sheena Xavier, Ms. Leena Deenja N G ,Dr. Joissy Mathew and Dr. Vimala George. The previous faculty members of the department also showed great enthusiasm and support for the event. The meet recording along with the Presentation and feedback form was shared with all registered members. A total of 172 feedback responses were made.

Brochure

Department of Physics & Internal Quality Assurance Cell
St. Xavier's College for Women, Aluva
Re-accredited by NAAC with A Grade, CUPA 5.23
Affiliated to Mahatma Gandhi University, Kottayam

Organize
INTERNATIONAL WEBINAR
ON
COVID-19 AND MENTAL
HEALTH: CHALLENGES AND
IMPLICATIONS

On 7th August 2020, 9:30 am
VIA GOOGLE MEET

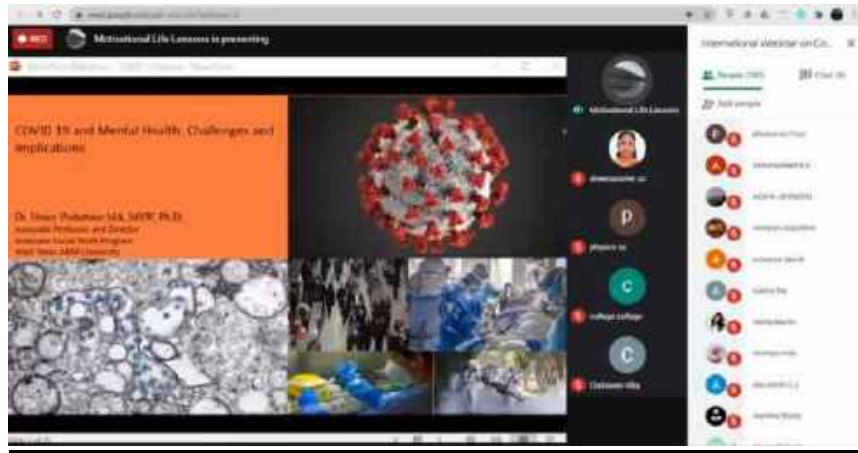
Dr. Henry Poduthase, M.A., M.P.W., Ph.D.
Associate Professor and Director
Graduate Social Work Program
West Texas A&M University
Lubbock, TX, 79409, USA

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No Redistribution

[CLICK HERE TO REGISTER!](#)

Organizing Committee:
Dr. Sr. Geege Joanamma Xavier - Patron
Dr. Sr. Stella A - Vice Patronal
Dr. Sheena Xavier - IQAC Coordinator @ IICW
Dr. Sujatha N.V. - Convener
Ms. Dhanya Jose - Joint Convener
Contact Details:
physics@stxwvsn.ac.in

Online Session



Link for the meet recording:

<https://drive.google.com/file/d/1FNGTqboi2ywLedRj36DFjlucEGOq69pv/view?usp=sharing>

Link for the meet attendance:

https://drive.google.com/file/d/1HVzc0aDO_qPZy67hw2j9vdscwIQ87oXE/view?usp=sharing

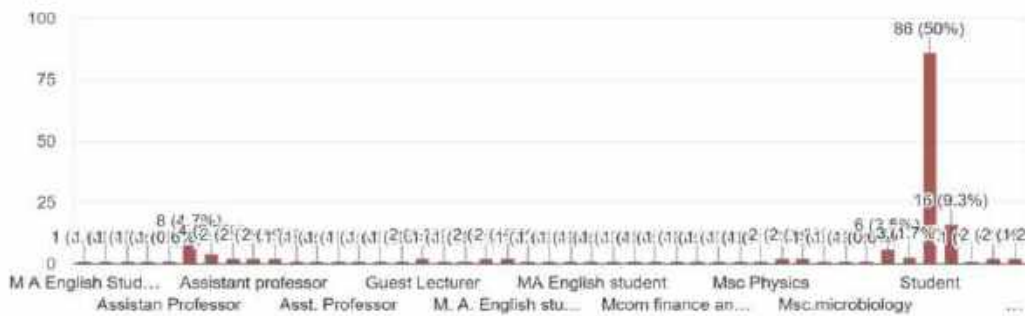
Feedback: https://docs.google.com/spreadsheets/d/1KTQU5WaMEAWw5-q0LzPC15B_9OPI3bDe1ubhYWfGPFw/edit?usp=sharing

YouTube link: https://youtu.be/yTOG_lae98A

Feedback

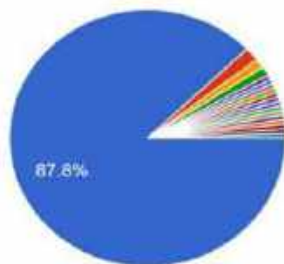
Designation

172 responses



Institution

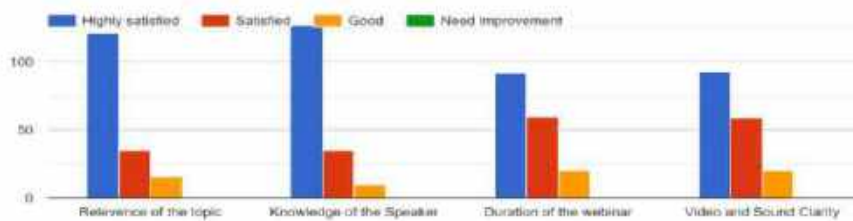
172 responses



- St. Xavier's College for Women, Aluva
- St. Teresa's College, Ernakulam
- Sree Sankara College, Kalady
- UC College, Aluva
- St Aloysius College
- Sree Narayana College, Kannur
- Mar Gregorios Abdul Jaleel Arts and S...
- Sree Narayana College, Nattika, Thrissur

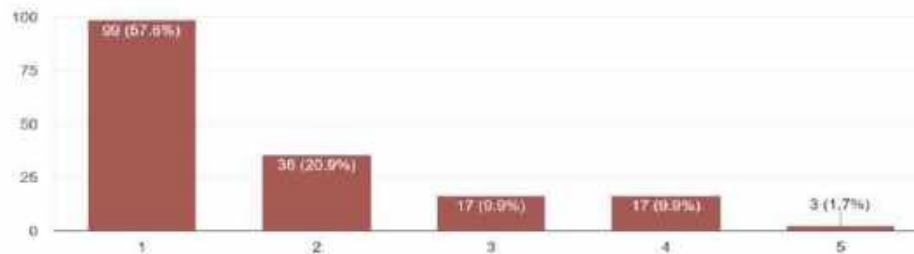
▲ 1/3 ▼

Please rate your satisfaction with the session for each of the following statements.



How would you rate the session ?

172 responses



Certificate format given:



4. STUDENT SUPPORT ACTIVITY BY THE DEPARTMENT OF PHYSICS - MANAGING STRESS DURING PANDEMIC 24/8/2020

An online counselling session was conducted as a part of the student support activity by the Department of Physics on 24/8/2020 VIA GOOGLE MEET for the BSc and MSc Students of the Department of Physics under the supervision of the resource person Dr. Sr. Ruby and Dr. Vimala George. A total of 69 participants were present during the live meet. The teachers of the department also actively participated showing their support and care for the students. The session successfully discussed the stress faced by students during this pandemic period and brought up ways to help students overcome / manage their stress.

Brochure



Link for the attendance list:

<https://drive.google.com/file/d/1xO9UFf0i6JD4E7vvvrtimASNTN1KOyhQ/view?usp=sharing>

Link for the feedback spreadsheet:

<https://drive.google.com/file/d/10qrZ2tpvnO9fOgiDailotnWHpsKcP7M9/view?usp=sharing>

Online Session



Feedback

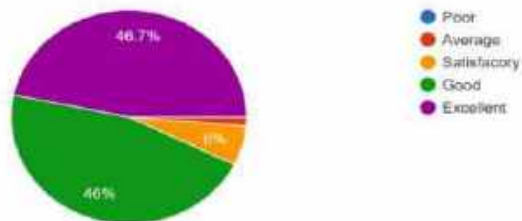
3. Was it useful?

150 responses



4. If yes, how do you rate the session?

150 responses



5. SHORT TERM COURSE

01/08/2020 - 15/09/2020

Event/ Activity Name	: Short term course
Organising Department/Club	: Department of Physics & Energy Conservation Club
Program Type	: Short term course
Event Theme	: Innovative Learning, Entrepreneurship
(Innovative Learning, Entrepreneurship, IPR)	
Coordinators	
Faculty Coordinator	: Dr. Vimala George
Student Coordinator	: Angel Marya Francis
Date & Time	: 01/08/2020 - 15/09/2020
Duration	: 15 videos of 5-15 duration and a quiz
Total Number of Participants Attended : 134	
Faculty	: 7
Students	: 127
External	: NA
Funding Source	: NA
Expenditure Amount	: NA

Detailed Description About the Event : Energy Swaraj Foundation(ESF) is a Mumbai based non-profitable organization. Energy Literacy Drive is an online course conducted by ESF on “Learn to Design Solar Systems”. St. Xavier’s College for Women, Aluva is a partner institution for this programme. The logo of the partner institutions can be viewed in the link https://energyswaraj.org/participating_organization_lss.ph. We had 134 registrations out of which 89 members clear the online quiz and certified.

6. ALUMNA TALK- The Power of Self Motivation

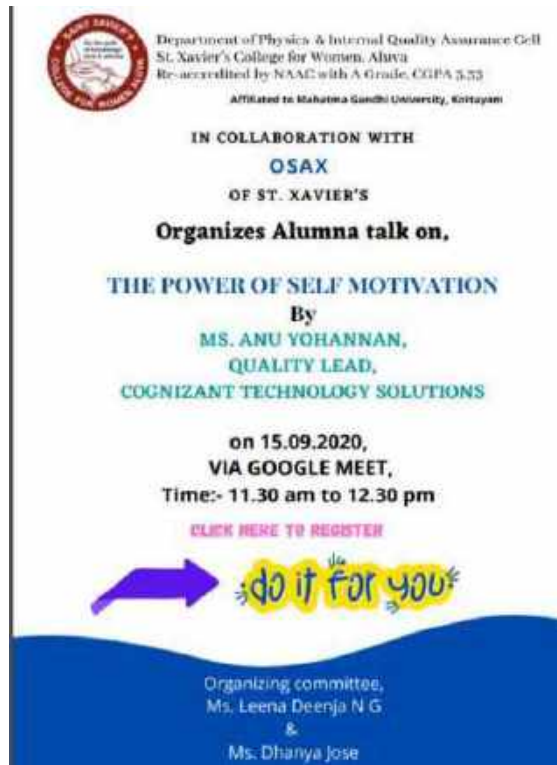
15/9/2020

On 15/9/2020 the Post Graduate Department of Physics in association with OSAX, of St. Xavier’s College for Women, Aluva. The session is an annual event, where the Alumna of the Physics department come back to share their experience and give motivation for the students. The event provides the students a first hand view of what is awaiting them after their life as a student. The session also motivates the students to strive harder for a bright future.

This was the first Alumna session held VIA Google Meet. The Alumna of the day was Mrs. Anu Yohannan, now working as Quality Lead, Cognizant Technology Solutions, Athulya Infopark, Kakkanad. After completing her B.Sc. Physics at St. Xavier’s College for Women, she did her MBA. During the session she shared her experiences and hardships she faced under the topic “The Power of Self Motivation”. At the end of the session students were able to acknowledge that Self-Motivation is a very powerful means to help yourself overcome one’s hardships and attain their dreams. A total

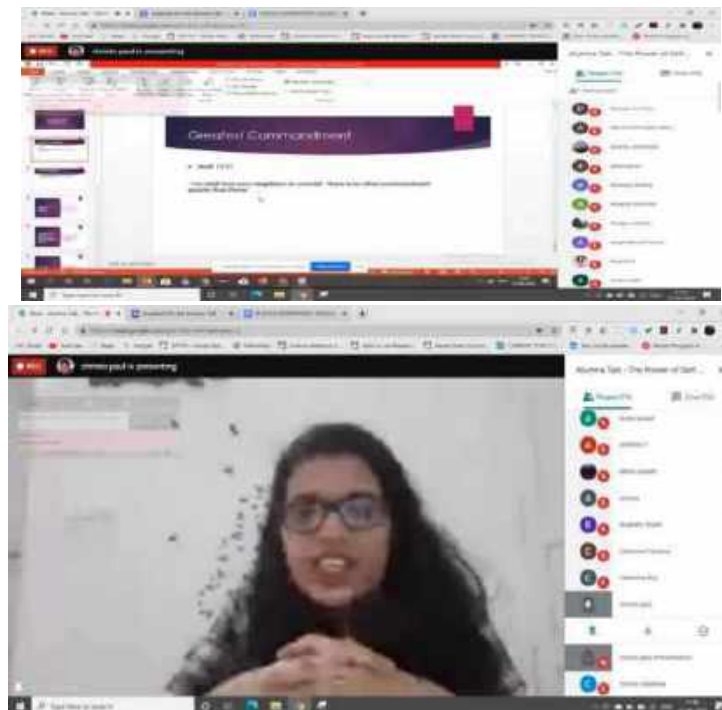
of 74 participants were present during the live session. A feedback form & participation certificate was provided for the participants.

Brochure



The brochure features a red circular logo at the top left with the text 'SANSKRITAM' and 'THE POWER OF KNOWLEDGE'. To the right, it lists the Department of Physics & Internal Quality Assurance Cell at St. Xavier's College for Women, Aluva, and mentions NAAC accreditation (A Grade, CGIPA 3.53) and affiliation to Mahatma Gandhi University, Kottayam. The main text reads: 'IN COLLABORATION WITH OSAX OF ST. XAVIER'S Organizes Alumna talk on, THE POWER OF SELF MOTIVATION By MS. ANU YOHANNAN, QUALITY LEAD, COGNIZANT TECHNOLOGY SOLUTIONS on 15.09.2020, VIA GOOGLE MEET, Time:- 11.30 am to 12.30 pm'. A pink link 'CLICK HERE TO REGISTER' is provided, followed by a purple arrow pointing to a yellow speech bubble with the text 'do it for you'. At the bottom, the organizing committee is listed as Ms. Leena Deenja N G & Ms. Dhanya Jose.

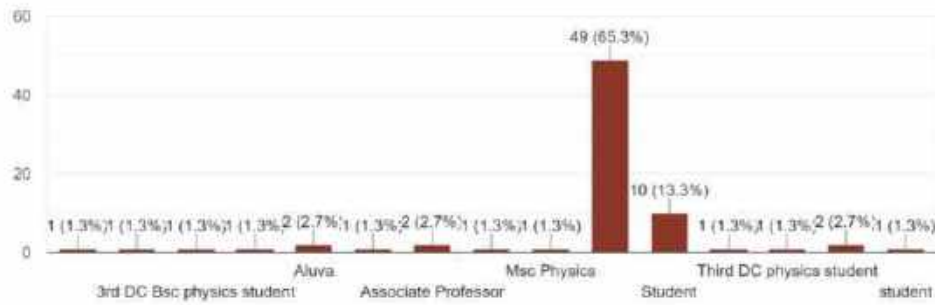
Online session



Feedback

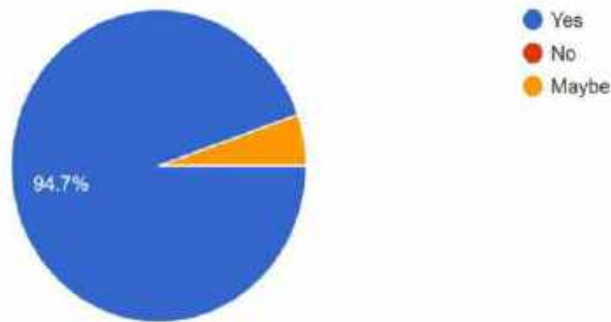
Designation

75 responses



Was the topic of discussion relevant for your growth as an individual?

75 responses

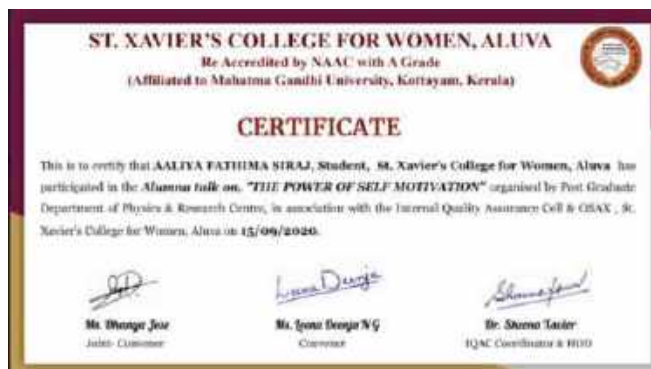


Was the session helpful fo you?

75 responses



Certificate/ Format



Link for meet recording:

<https://drive.google.com/file/d/1ws79yjGHqLdBcONUazWy5ePI3vL6GD6h/view?usp=sharing>

Link for attendance:

<https://drive.google.com/file/d/1ws79yjGHqLdBcONUazWy5ePI3vL6GD6h/view?usp=sharing>

7. WEBINAR ON HUMAN RIGHTS 19/09/2020

A webinar on Human Rights was conducted for the Third Year Degree students on 19/09/2020 Via Google Meet. About 53 participants consisting of both students and faculty were present during the live meet. Mrs. Minimole. K led the talk by discussing the various factors and laws on Human Rights. The class was extremely informative and helpful for the students both academically and their real life experiences.

Brochure



Live meet Photo

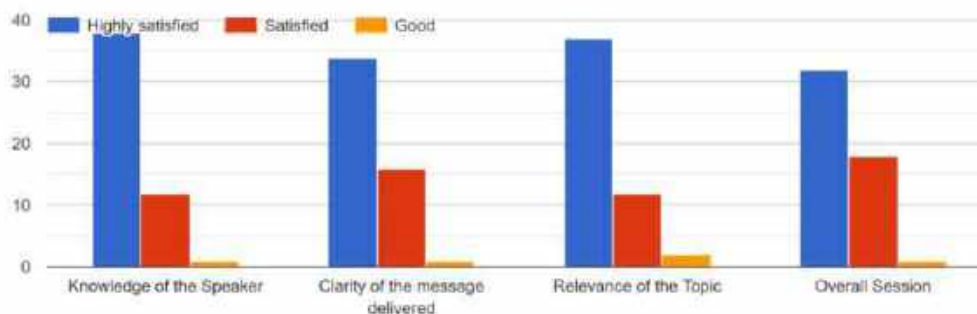


Certificate format used



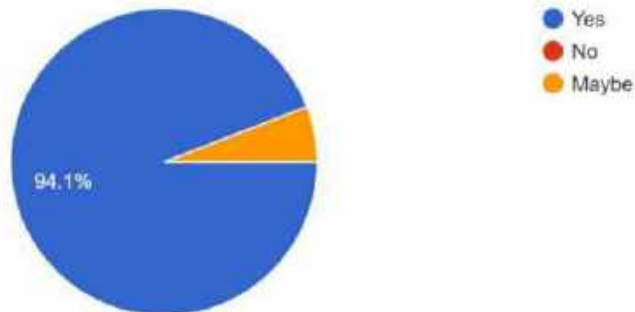
Feedback

Please rate your satisfaction with the session for each of the following statements.



Would you be willing to participate in similar sessions in future?

51 responses



Link for meet Recording:

<https://drive.google.com/file/d/1NV0uuyTL-geoXLjJ7YTzrVWLU9lwik6Z/view?usp=sharing>

Link for registration:

<https://docs.google.com/spreadsheets/d/109CsXSKUfJJeSrINz2bIOJXQ60SGXBeoWv3WI9vSIF8/edit?usp=sharing>

Link for feedback:

<https://docs.google.com/spreadsheets/d/193mn75uTeZMDCTHjCJayPTOGttBCamSkCSp eO8hTnp8/edit?usp=sharing>

8. ROLE OF YOUTH IN ATTAINING ATMANIRBHAR BHARATH IN ENERGY
2/10/2021

Event/ Activity Name : **Role of Youth in attaining Atmanirbhar Bharath in Energy**
Organising Department/Club : **Department of Physics and Energy Conservation Club**
Program Type : **Training and awareness program**

(Workshop, Leadership talk,

Motivational, Field Visit, Others Specify)

Event Theme : **Innovative Learning & Entrepreneurship**

(Innovative Learning, Entrepreneurship, IPR)

Coordinators

Faculty Coordinator : **Dr. Vimala George**

Student Coordinator : **Ms. Anagha Satheesh**

Date & Time : **2-10-2020, 10am to 1pm**

Duration : **3 hours**

Total Number of Participants Attended : **27**

Faculty : **6**

Students : **21**

External : **NA**

Funding Source : **NA**

Expenditure Amount : **NA**

Detailed Description About the Event : The Energy Swaraj Foundation believes that not through the governments around the world or its policies, but through the involvement of the public, a major transformation in energy generation and consumption towards renewable energy can be achieved. The Foundation is igniting the Energy Swaraj Movement wherein through awareness, people themselves undertake the required action for climate change mitigation. The Movement sets to bring a philosophical understanding and practical acceptance in society, at large, for the adoption of the solar solutions in a disciplined manner for fulfilling 100% energy needs.

In this connection, Department of Physics, St. Xavier’s College for Women, Aluva joined hands with Energy Swaraj Foundation and encouraged staff and students to attend a three hour webinar on ‘Role of Youth in attaining Atmanirbhar Bharath in Energy’. 27 staff and students attended the same and got certificates.



9. PEP UP YOUR CONFIDENCE 28/10/2021

Event/ Activity Name : **Pep Up Your Confidence**

Organising Department/Club : **Department of Physics**

Program Type : **Orientation**

(Workshop, Leadership talk, Motivational, Field Visit, Others Specify)

Event Theme : **Innovative Learning**

(Innovative Learning, Entrepreneurship, IPR)

Coordinators

Faculty Coordinator : **Dr. Sujatha N V**

Student Coordinator : **Ms. Amruthalakshmi Poudhar**

Date & Time : 28-10-2020

Duration : 1 hour

Total Number of Participants Attended : 35

Faculty : 2

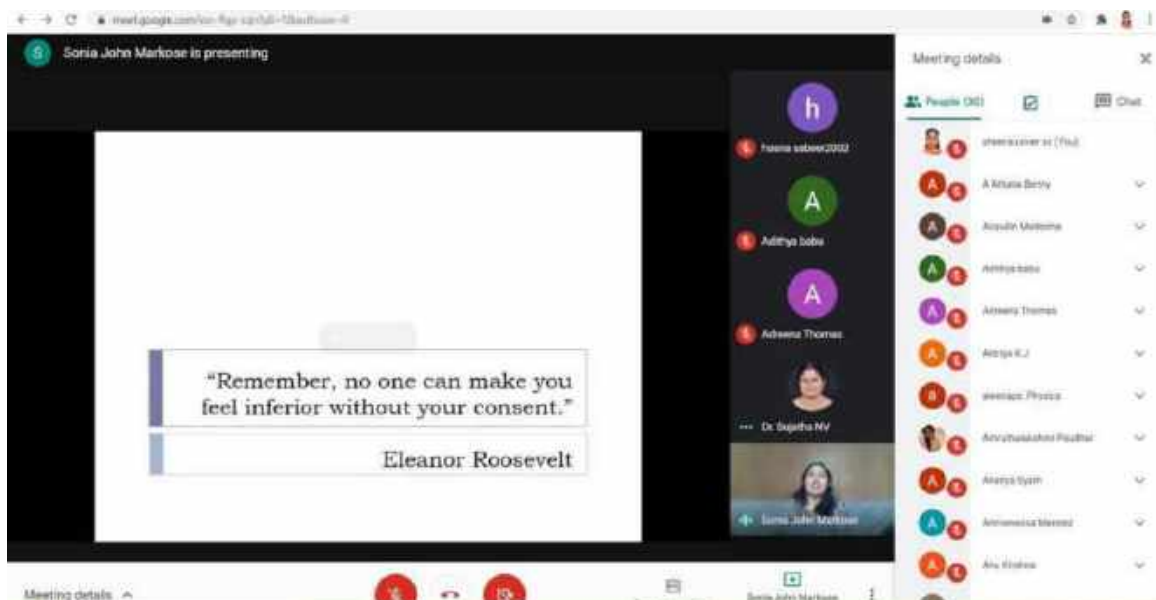
Students : 33

External :NA

Funding Source : NA

Expenditure Amount :NA

Detailed Description About the Event : An orientation program was organized for the first year Undergraduate Physics students on the topic Pep Up Your Confidence. Mrs. Sonia John Markose, Assistant Professor of Communicative English was the resource person for the program.



10. STATE LEVEL QUIZ COMPETITION - 30/10/2020

A State Level Quiz competition was held by the Department of Physics via Google forms with the help of an Add-on called "Timer + Proctor". Students from various colleges and streams from different colleges in Kerala participated in the competition. The prize money was given to the winner via net banking. The third place was shared by two participants and hence the prize money was equally shared between them.

The following table contains the result of the competition:

Name	Institute	Position
SANJU JOSE	RAJAGIRI SCHOOL OF ENGINEERING AND TECHNOLOGY	First Place
Noopura M	St.Xaviers College,Aluva	Second Place
Fathima Nazrin	St xaviers College for women Aluva	Third Place (shared)
Don mathew	Cms college	

Brochure



Link for the score sheet:

https://docs.google.com/spreadsheets/d/18hN1Agl87YlvSO_FMMFDyBozXACvppmeQq0hUzBUNxE/edit?usp=sharing

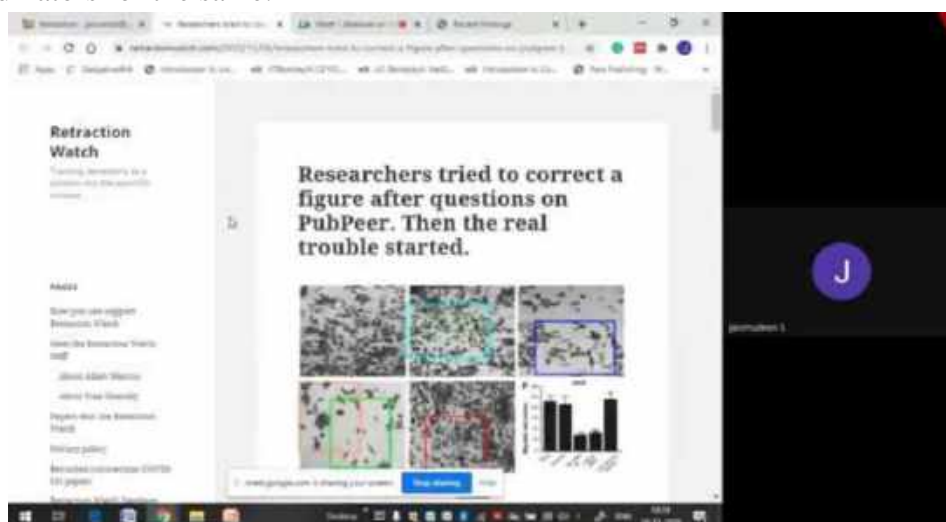
Link for the registration:

<https://docs.google.com/spreadsheets/d/1riktL6tT-kuamTqS5xAPuU6b5KvChh4xY8J4sqHG0hl/edit?usp=sharing>



11.WEBINAR ON RESEARCH ETHICS AND INTEGRITY - 10/11/2021

The Internal Quality Assurance Cell has organized a webinar on Research Ethics and Integrity in association with the Research Promotion Council and Department of Physics. Dr. Jasimudeen, Librarian, St. Stephen's College, Vazhoor was the resource person. The webinar was conducted for faculty and research scholars and a total of 36 participants were present during the live meet (24 faculty members & 12 Research Scholars). Dr. Vimala George & Dr. Anu Anto were the faculty coordinators for the same.



Falsification/Fabrication

- An analysis of image manipulation at the Journal of Cell Biology found 1% of images had been inappropriately altered.



YouTube link : <https://youtu.be/YaTCVTn5ZbI>

Registration Sheet:

<https://drive.google.com/file/d/1d9VDLuQZreFXUI9wW0cOpvR0jB4fNnRv/view?usp=sharing>
[g](#)

Feedback and attendance sheet: https://docs.google.com/spreadsheets/d/10I0k5-i6BmHINbHkOJG19Wn8Vkt_Bu4cxgTWnycg90k/edit?usp=sharing

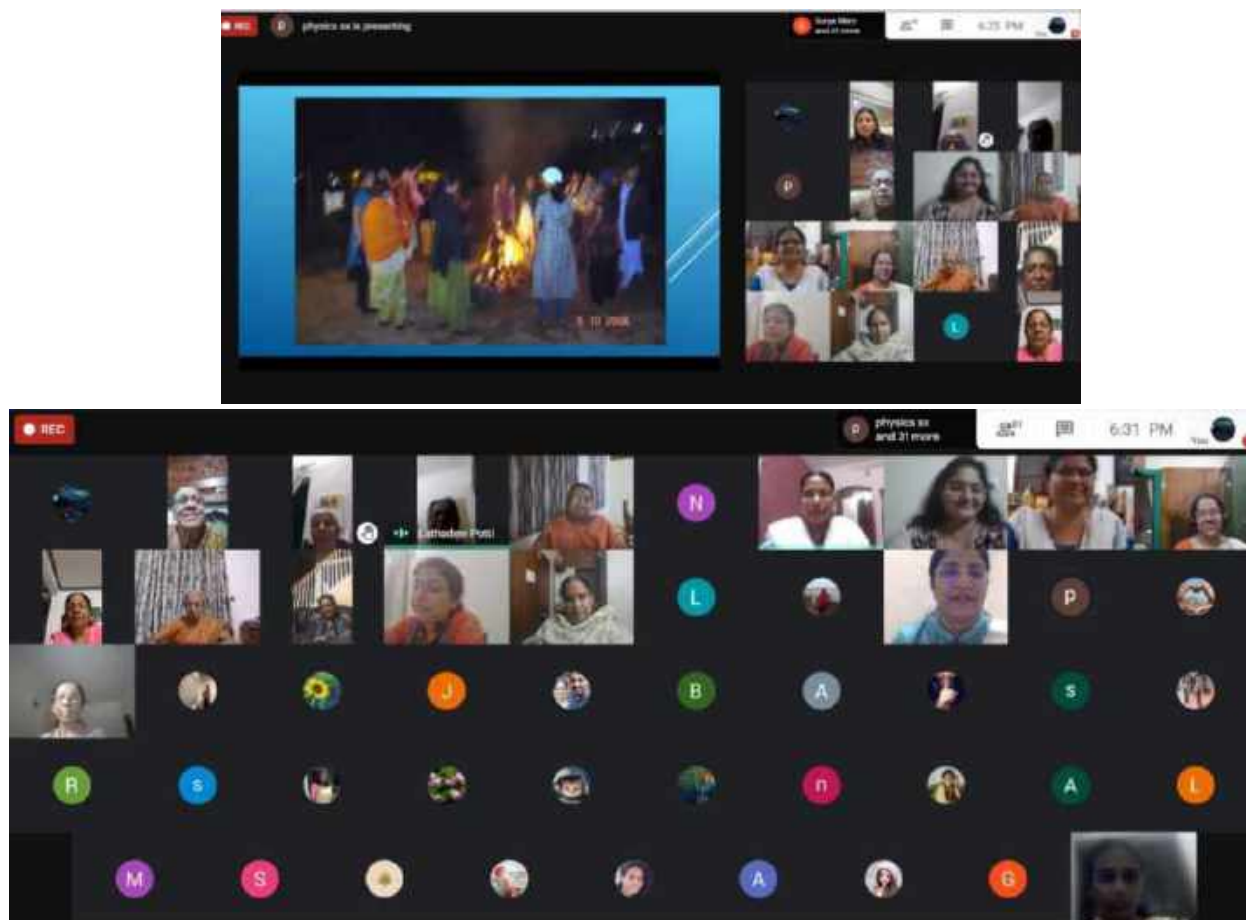
12. VIRTUAL ALUMNI MEET - 28/11/2020

On 28/11/2020 a virtual Alumni Meeting was held via Google Meet for all the alumni and retired faculty members of the Department of Physics out of a total of 128 registered participants almost 79 were able to join the meet live through Google Meet and the rest joined through the YouTube Live streaming . The meeting provided a platform for all the alumni,retired staff and current staff to come together and share their experiences and give their life updates. A very detailed presentation was shown enticing the old memories and nostalgia. All the participants showed extreme happiness and gratitude for organizing the event , where alumni and faculty from various parts of the world could join real time. The meet ended with a promise to meet offline in the near future where the world is safe from the dangers of the Covid-19.

Coordinators : Ms. Leena Deenja

Dr. Joissy Mathew

Live Meet Photo



Brochure



13.DESIGN THINKING, CRITICAL THINKING AND INNOVATION DESIGN- 29/12/2020

In association with IEDC and IIC of the St. Xavier's College for Women, Aluva, the Post Graduate Department of Physics & Research Centre organized a workshop on “ Design Thinking, Critical Thinking and Innovation Design “ on 29/12/2020 via Google Meet at 2:30 PM.

Resource person: Dr. Sheena Xavier (Associate Professor & HOD Physics Department, Innovation Ambassador of IIC.

Funding Agency : IIC & IEDC

**ST.XAVIER'S COLLEGE FOR
WOMEN, ALUVA**

**INNOVATION AND ENTREPRENEURSHIP
DEVELOPMENT CENTRE**

**INSTITUTION'S
INNOVATION
COUNCIL**

We invite you to the workshop conducted by the
Innovation Cell on the topic "Design Thinking, Critical
Thinking and Innovation Design.

Resource person




Dr. Sheena Xavier,
Associate Professor & HOD Physics Department,
Innovation Ambassador of IIC

Venue : Googlemeet
Date : 29/12/2020
Time : 2.30 pm

14. FOCUS FOR FUTURE - 07/01/2021

On 07/01/2021 an Interdisciplinary programme funded by the DBT STAR COLLEGE SCHEME was organized by the department of Physics via Google Meet. The talk was led by Mr. Sanesh Varghese, Author, Entrepreneur, Educationist & Trainer. First year degree students from various departments of the college actively participated in the event. The talk helped the students to have a better understanding on how to train themselves to have a better and brighter future.


Brochure

 Post Graduate Department of Physics & Research Centre
St. Xavier's College for Women, Aluva
Re-accredited by NAAC with A grade, CGPA 3.33
ISO 9001:2015 certified
(Affiliated to Mahatma Gandhi University, Kottayam, Kerala)

**The Department of Physics
organises an interdisciplinary programme funded by
DBT STAR COLLEGE SCHEME**

titled
"Focus for Future"





by

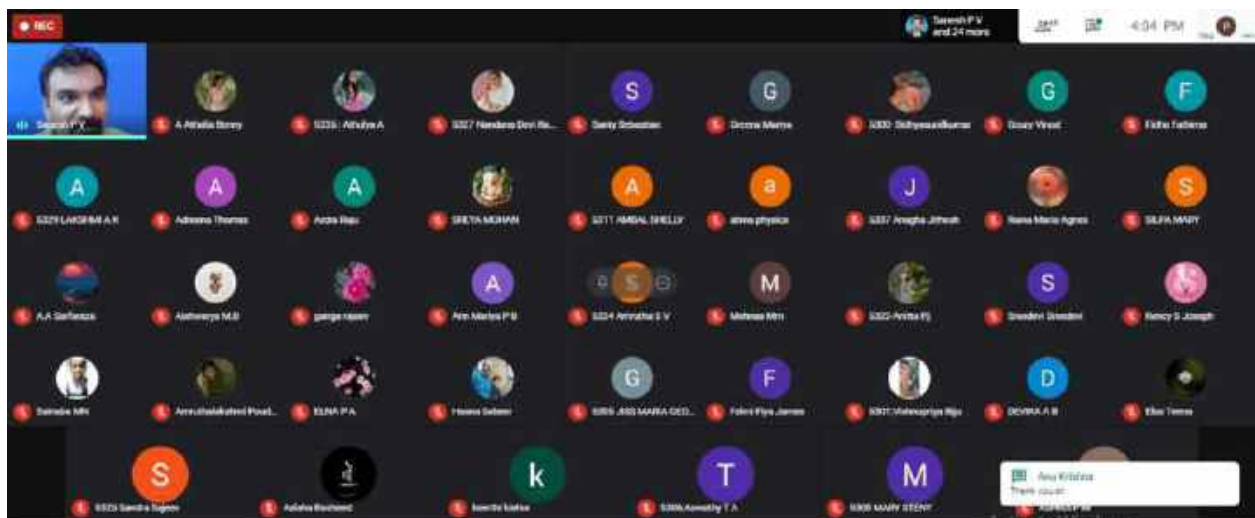

Sanesh Varghese
Author, Entrepreneur, Educationist & Trainer
Managing Partner - Quad Business Services
Director - Jes Institute for Competency Training Kottayam,
Former Deputy Director - Mar Athanasius College Thiruvalla

On 07/01/2021
2 PM to 4 PM
Via Google Meet

[Click here to register](#)

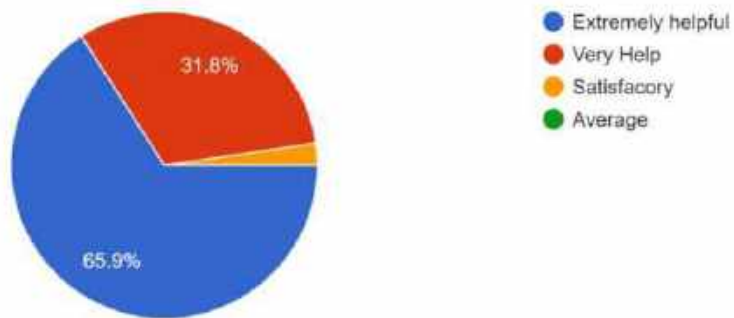
Coordinators:
Ms. Poornima B Shenoy
Ms. Dhanya Jose
For further details contact: physics@stxaviersaluva.ac.in

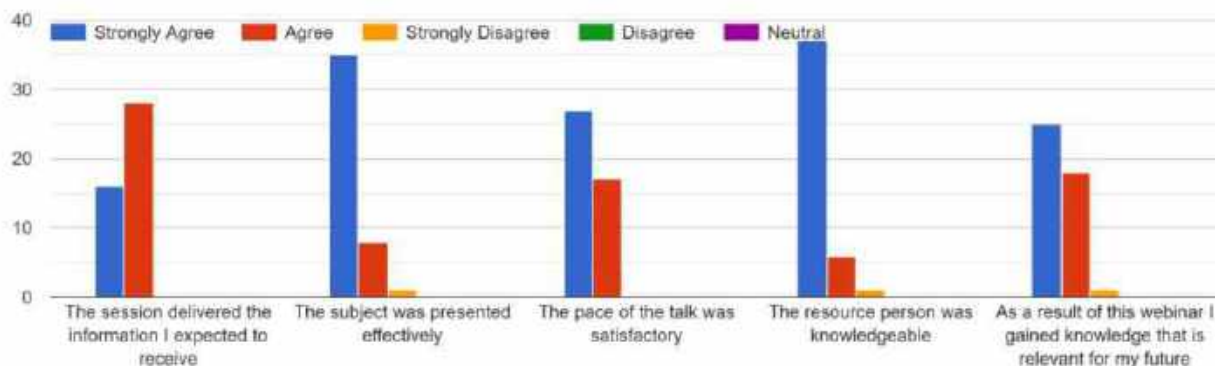


Feedback

How helpful was the webinar for you?
 44 responses



Please rate your satisfaction with the content of the webinar by indicating your level of agreement or disagreement with each of the following statements.



Link for Meet Recording:

<https://drive.google.com/file/d/1WnN1JBQxQszNUBktzJrfyPSldQfOC6tj/view?usp=sharing>

Link for registration :

<https://docs.google.com/spreadsheets/d/1x1fSgWNpF8weGw4NUwMk0AQVCuMr2Xkkdw pNFb4OLbo/edit?usp=sharing>

Link for Feedback: <https://docs.google.com/spreadsheets/d/1nUfKKq6UmTGpQk-6bsg7xMms7IGl42WLn0q3A9qY1To/edit?usp=sharing>

15.ACADEMIA 2021 - ORACLE - 14/01/2021

On 14/01/2021 an Interdisciplinary programme ORACLE funded by the DBT STAR COLLEGE SCHEME was organized by the department of Physics via Google Meet, as a part of ACADEMIA 20-21. The webinar titled "Impact of extreme hot climate on COVID-19 outbreak in India, by Ms. Keerthi Sasikumar, Doctoral Researcher, Institute of Atmospheric Physics, Chinese Academy of Science helped the students to learn and study about the relation between the climate and COVID-19 case numbers. The talk acted as an introduction to a rather new field for the students called Atmospheric Science. All the students & faculty from the department of Physics enthusiastically participated in the event. The talk helped the students to see the world from a perspective of an enthusiastic and passionate researcher. The speaker's enthusiasm spread to the students and motivated many to think of a future in the field of Atmospheric Physics. A total of 109 participated through Google Meet and Offline while following proper COVID-19 regulations.

Brochure



Post Graduate Department of Physics & Research Centre
St. Xavier's College for Women, Aluva
Re-accredited by NAAC with A grade, CGPA 3.88
(ISO 9001:2015 certified)
(Affiliated to Mahatma Gandhi University, Kottayam, Kerala)

In Association with the
Internal Quality Assurance Cell
Organize a Webinar Funded by
DBT STAR COLLEGE SCHEME
on
**Impact of extreme hot climate on COVID-19
outbreak in India**
by

Ms. Keerthi Sasikumar
Doctoral Researcher
Institute of Atmospheric Physics
Chinese Academy of Sciences



On 14-01-2021 at 10am Via Google Meet

 [Click here to Register!](#)

Coordinators
Dr. Sheena Xavier
Dr. Sujatha N V

Organizing Committee
1. Ms. Leena Deenja
2. Dr. Joisay Mathew
3. Dr. Vimala George
4. Ms. Dhanya Jose
5. Ms. Poornima B Shenoy



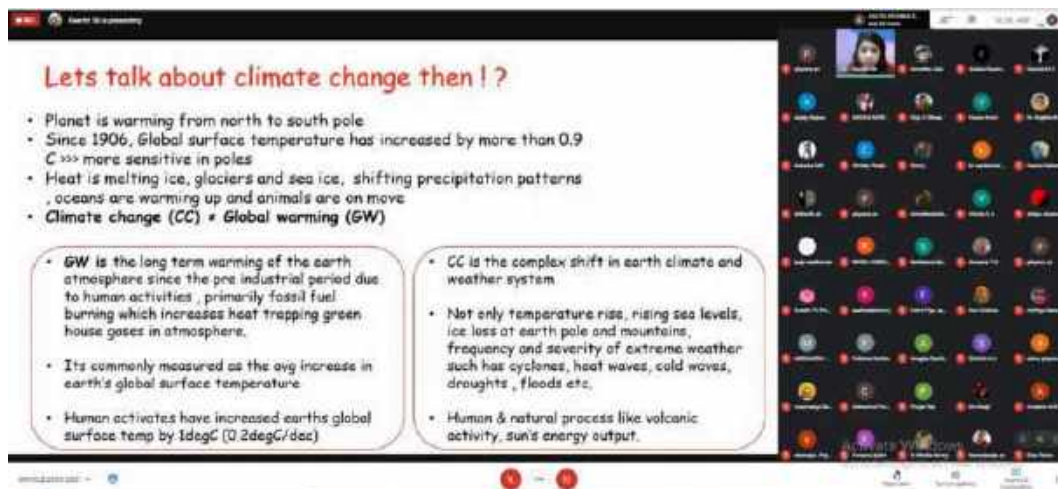
Live Meet & Offline Meet Pictures

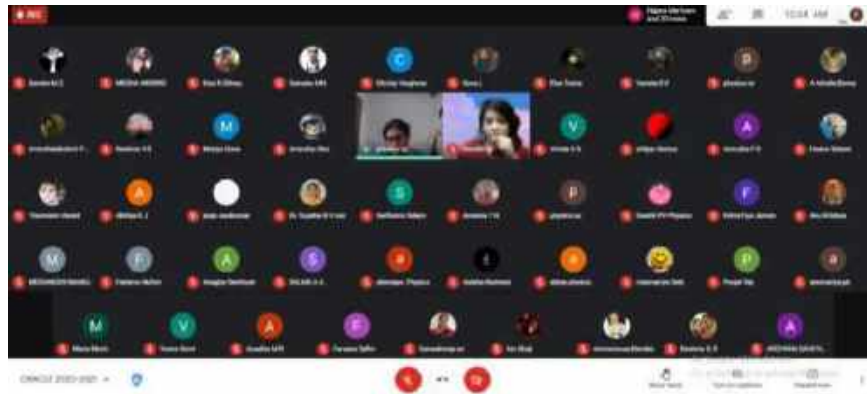
Lets talk about climate change then ! ?

- Planet is warming from north to south pole
- Since 1906, Global surface temperature has increased by more than 0.9 C >>> more sensitive in poles
- Heat is melting ice, glaciers and sea ice, shifting precipitation patterns, oceans are warming up and animals are on move
- **Climate change (CC) ≠ Global warming (GW)**

- **GW** is the long term warming of the earth atmosphere since the pre industrial period due to human activities, primarily fossil fuel burning which increases heat trapping green house gases in atmosphere.
- Its commonly measured as the avg increase in earth's global surface temperature
- Human activities have increased earth's global surface temp by 1degC (0.2degC/dec)

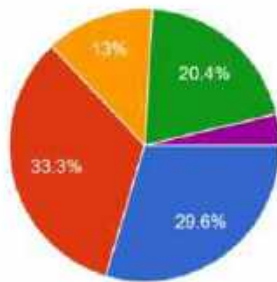
- **CC** is the complex shift in earth climate and weather system
- Not only temperature rise, rising sea levels, ice loss at earth pole and mountains, frequency and severity of extreme weather such has cyclones, heat waves, cold waves, droughts, floods etc.
- Human & natural process like volcanic activity, sun's energy output.





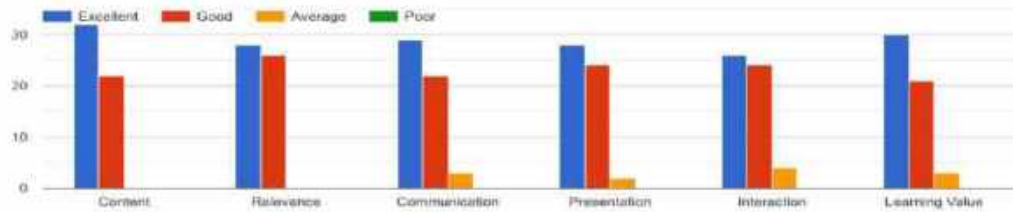
Feedback

Class
54 responses

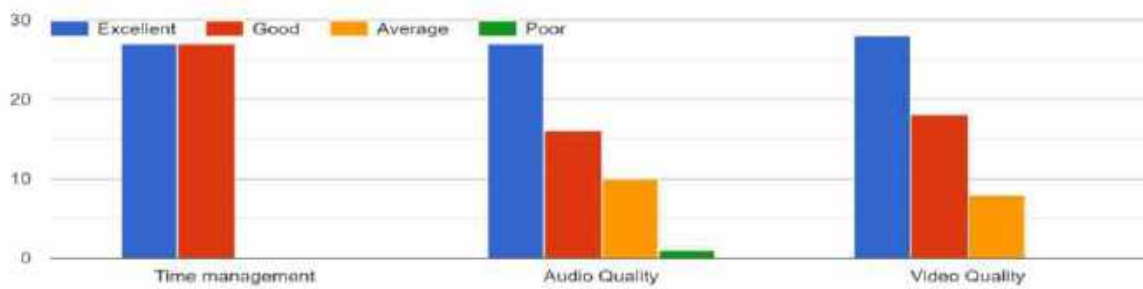


- I DC PHYSICS
- II DC PHYSICS
- III DC PHYSICS
- I PG PHYSICS
- II PG PHYSICS

Feedback on speaker:



Feedback on organization



Link for the Registration Sheet: <https://docs.google.com/spreadsheets/d/1Qb1ei22hWTfR-TI7T8zVQdUb02ujnilaFmJqpWHowY/edit?usp=sharing>

Link for the Feedback sheet:

<https://docs.google.com/spreadsheets/d/1ncSOaKk8A9ONXsHCT8uDadVOvAzknPAj3fR7mZM2TT4/edit?usp=sharing>

Link for the Meet recording:

https://drive.google.com/file/d/1nuyUB_OOMEzubTIBZpZ6VXI46PadxzWG/view?usp=sharing

16.ACADEMIA- INTERACT - 15/01/2021

In connection with the Student Talk Programme-Interact of Academic week 20-21 The Post Graduate Department of Physics & Research centre held INTERACT! on 15/01/2021 via Google Meet. The talk was done by Anagha Sathish, Third Year B.Sc. Physics student, on the topic “ COVID -19 FROM AN ECOLOGICAL PERSPECTIVE” for the second year B.Com students.

Brochure

**In connection with the Student Talk Programme-
Interact of Academic week 20-21**

PG Department of Physics & Research Centre Organizes

INTERACT!

15-01-2021
10.30 AM -11.30 AM

Presented by
Anagha Sathish
III DC Physics

Meet Pictures

Pathogens are less likely to spread to humans in areas where they have several other species of host animals, like birds, bats and other mammals, in good population sizes. These various host-species that have a natural immunity to these infections can survive with the pathogen. So, they can act as reservoirs and "dilute" the risk of infecting humans.

Besides understanding the importance of biodiversity, we also need a detailed understanding of wildlife and human movement across landscapes to predict and prevent disease spread. Collecting and analysing big data on human and animal movement is imperative to make effective early warning systems about the spread of these infections.

Aluva - Munnar Highway, Periyar Nagar, Aluva, Kerala 683101, India

Type	Degree	DMS
Latitude	10.1117504	10°6'42" N
Longitude	76.358892	76°21'32" E

15 Jan 2021, 10:56 am

REC

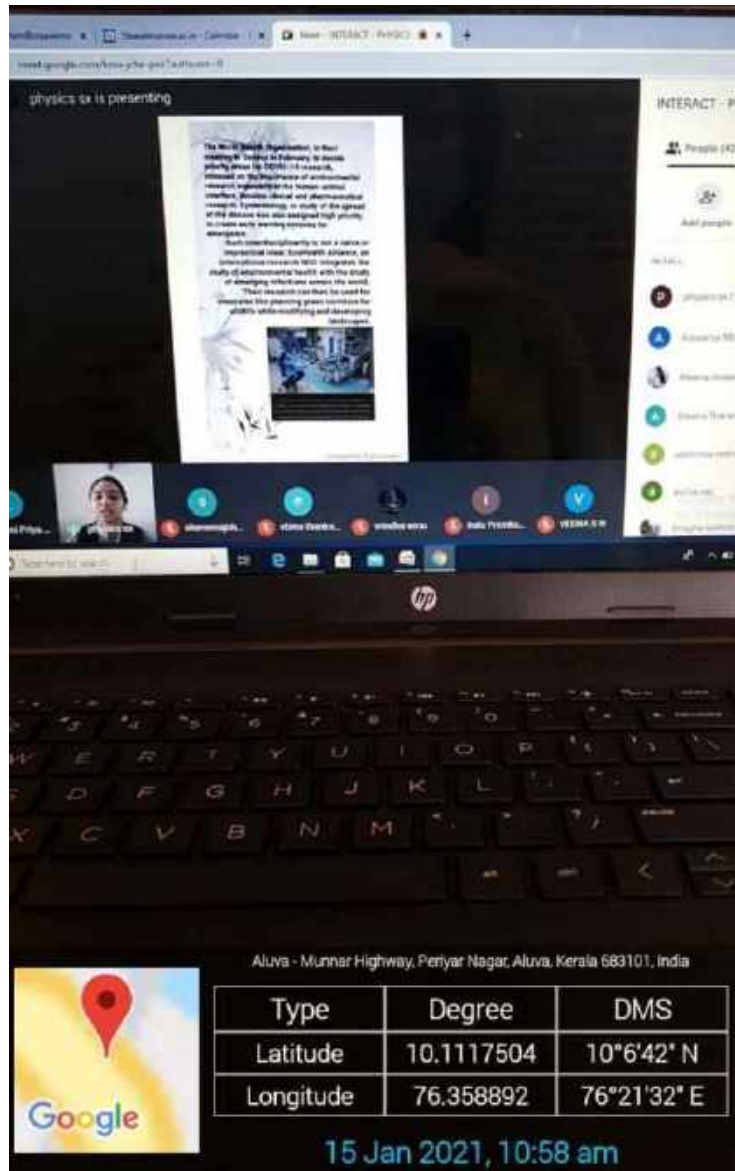
INTERACT - PHYSICS 2020-2021

People (3/3) Chat

Add people Host controls

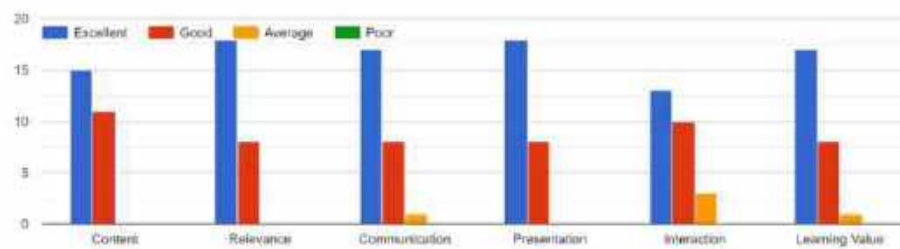
IN CALL

- physics xx (You)
- Alwarya Mohan
- Alena Joseph
- Alena Theresa
- apurna rethina

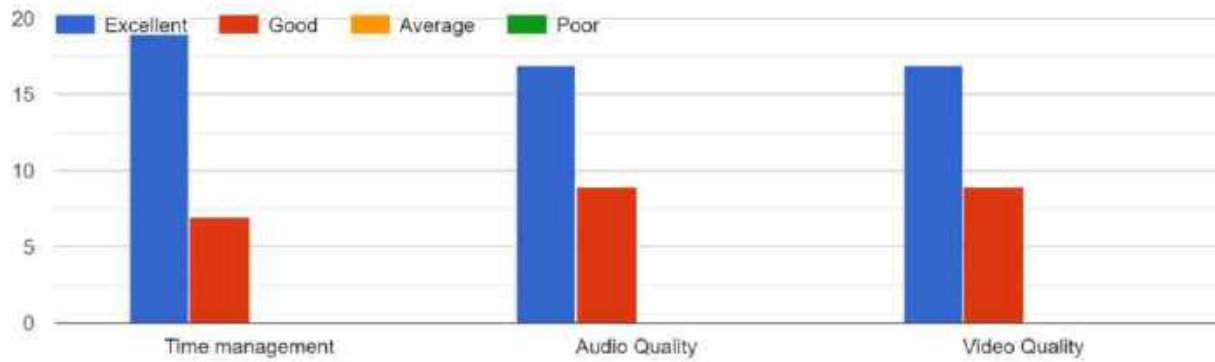


Feedback

Feedback on speaker:



Feedback on organization



Link for feedback:

https://docs.google.com/spreadsheets/d/1gPeHa2-Df3q0cmqCcwDwLKsFW9pyWgDZjRsTDd7qd_M/edit?usp=sharing

Link for Meet recording:

<https://drive.google.com/file/d/1fbXAlaPzkJo2ouWzhKCz6irTrnTMrGBU/view?usp=sharing>

17. MONTE CARLO INTEGRATION METHODS 16/1/21

On 16-01-2021 Webinar on Monte Carlo Integration was organized via Google Meet for the Postgraduate Physics students and faculty from various institutes, by the Postgraduate Department of Physics, St. Xavier's College for Women, Aluva. Dr. Ansa Alphonsa Antony, Assistant Professor of Statistics, St. Xavier's College for Women, Aluva was the talk person. 41 active listeners were present during the session. Feedback was collected after the program.

Brochure & Meet Pictures

The brochure is for a webinar titled "MONTE-CARLO EVALUATION OF INTEGRALS". It is organized by the Postgraduate Department of Physics & Research Centre at St. Xavier's College for Women, Aluva. The speaker is Dr. Ansa Alphonsa Antony, Assistant Professor of Statistics at the same college. The event is scheduled for 16th January 2021 at 4:30 PM via Google Meet. The brochure also lists coordinators and an organizing committee.

Post Graduate Department of Physics & Research Centre
St. Xavier's College for Women, Aluva
Re-accredited by NAAC with A grade, CGPA 3.35
ISO 9001:2015 certified
(Affiliated to Mahatma Gandhi University, Kottayam, Kerala)

A WEBINAR ON
**MONTE-CARLO
EVALUATION OF
INTEGRALS**

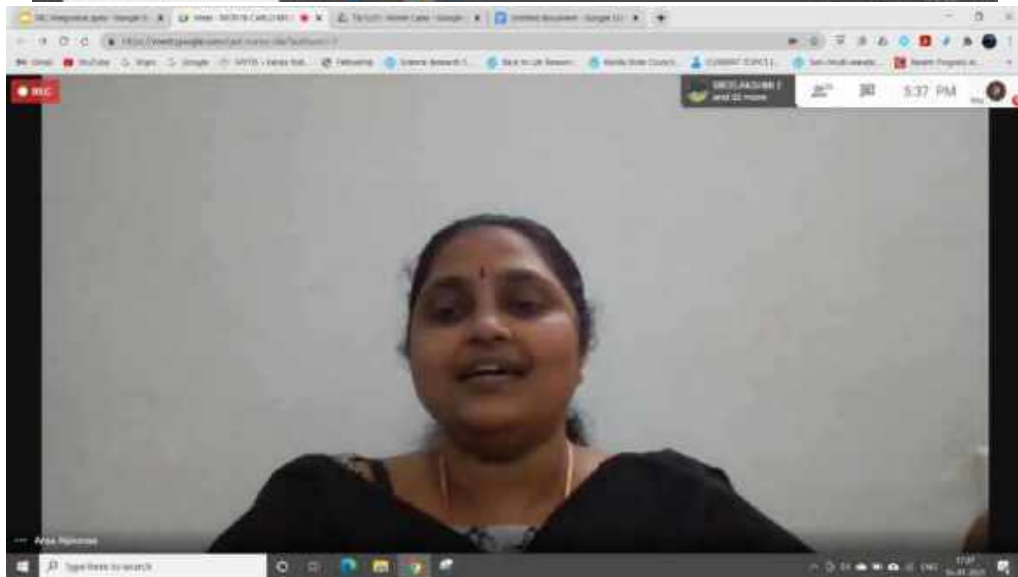
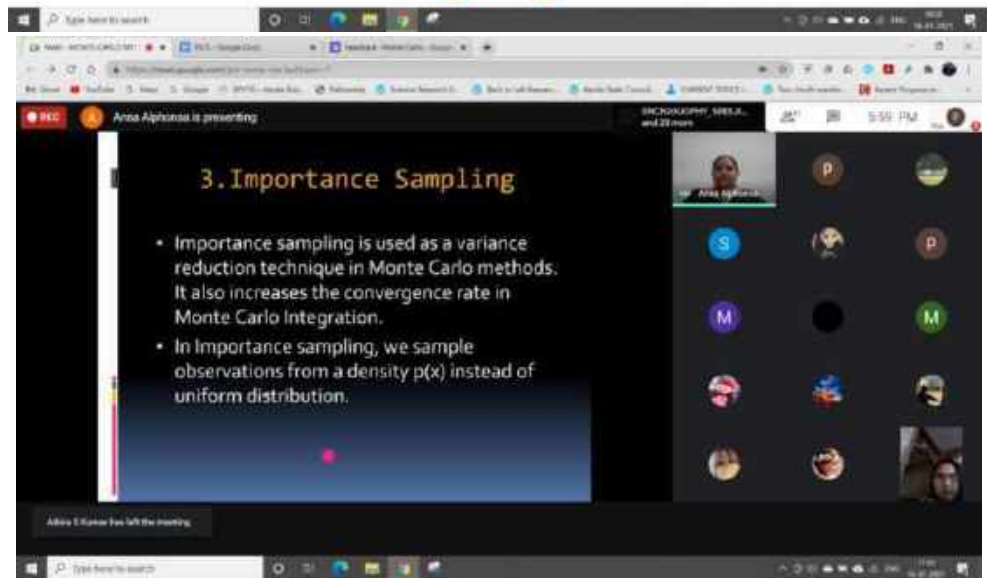
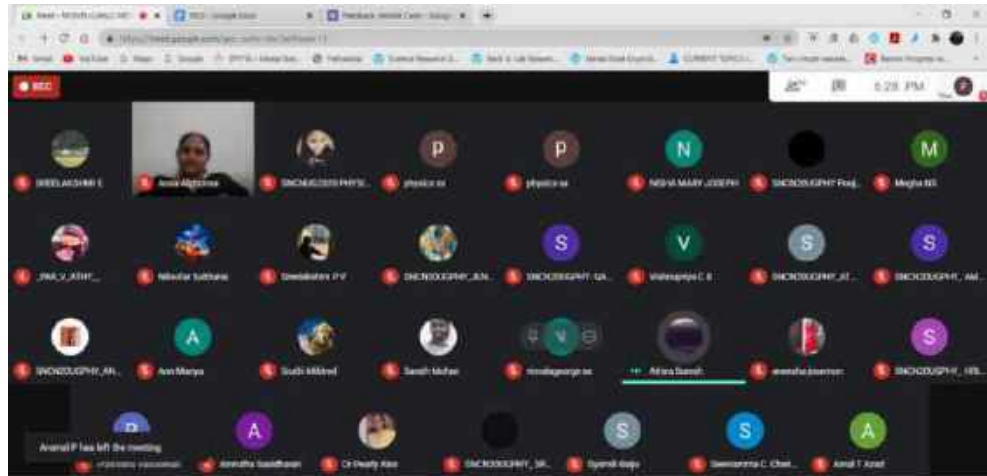
DR. ANSA ALPHONSA ANTONY
ASSISTANT PROFESSOR OF STATISTICS
St. Xavier's College for Women
Aluva

[CLICK HERE TO REGISTER](#)

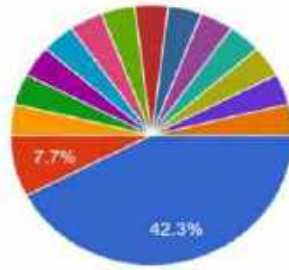
COORDINATORS
DR. SHEENA XAVIER
DR. JOISSY MATHEW

ORGANIZING COMMITTEE
MS. LEENA DEENJA
DR. VIMALA GEORGE
DR. SUJATHA N V
MS. DHANYA JOSE
DR. SR. RAINY
MS. POORNIMA B SHENOY

16th January 2021
4.30 PM via



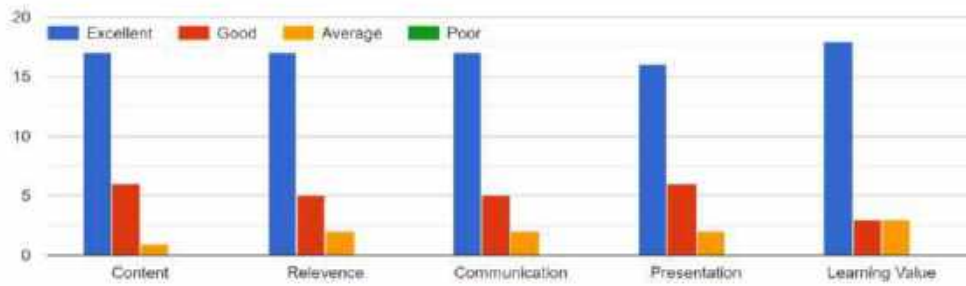
Institute
26 responses



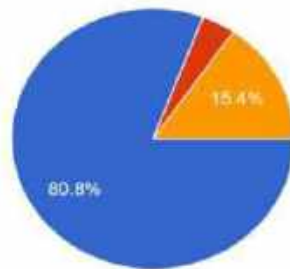
- St. Xavier's College for Women, Aluva
 - SN COLLEGE NATTIKA
 - St. Thomas College, Ranni
 - Sree Narayana College, Nattika
 - Sn college Nattika
 - SN college nattika
 - SN COLLEGE NATTIKA
 - St.Thomas College, Ranni
- ▲ 1/2 ▼

Feedback

Feedback on speaker:



Was the session helpful for you?
26 responses



- Yes
- No
- Maybe

Meet Recording:

https://drive.google.com/file/d/13W77zYK5_A-1yEimeJbg-KCTt1rNEc9E/view?usp=sharing

Feedback Link:

https://docs.google.com/spreadsheets/d/1PiIVSOJ2_XIT0mgNGYHDO13CLMVPIZ84j1hxx9Crj68/edit?usp=sharing

Meet Attendance :

<https://drive.google.com/file/d/1x5L07uMp27jg1sP1PtWXrsC1c7fYW-EG/view?usp=sharing>

18. THE ART OF PROBLEM SOLVING IN PHYSICS

21/01/2021

On 21-01-2021 a webinar on “ The Art of Problem Solving in Physics” was conducted for the Undergraduate Physics Students via Google Meet which was organized by the Postgraduate Department of Physics and Research Centre, St. Xavier's College for Women, Aluva. 24 active participants were present in the session. A feedback was collected from the participants after the session.

Brochure & Meet Pictures

Post Graduate Department of Physics & Research Centre:
St. Xavier's College for Women, Aluva
Re-accredited by NAAC with A grade, CGPA 3.33
ISO 9001:2015 certified
(Affiliated to Mahatma Gandhi University, Kottayam, Kerala)

Organizes
"The Art of Problem Solving in Physics"
Funded by DBT STAR COLLEGE SCHEME
by

Dr. Tharanath R.
Assistant Professor
Aquinas College
Edacochin

On 21-01-2021 at 4 pm Via Google Meet

[Click here to Register!](#)

Coordinators
1. Dr. Sheena Xavier
2. Ms. Dhanya Jose

Organizing Committee
1. Ms. Leena Deenja
2. Dr. Joissy Mathew
3. Dr. Vimala George
4. Dr. Sujatha N.V
5. Dr. Sr. Elia Raine
6. Ms. Poornima B Shenoy



REC Tharanath R is presenting

Acquatin Medson... and 30 more 4:18 PM

$m \frac{d^2 y}{dt^2} = -\nabla V(x)$

$m \frac{d^2 x}{dt^2} = -\nabla V(x)$

$m \frac{d^2 x}{dt^2} = -\frac{\partial V(x)}{\partial x}$

$\vec{r} = (x)\hat{i} + (y)\hat{j} + (z)\hat{k}$

physics xx has left the meeting

physics xx

Domna Estlin

shahana rahman

anjaly sapre

AJITHA P M

Very Kurganov

Sreedevi N

physics xx

Tharanath R

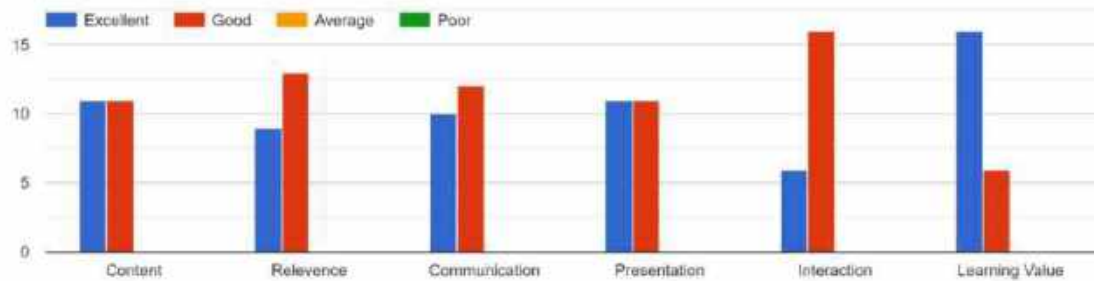
type here to search

16:18 21-01-2021

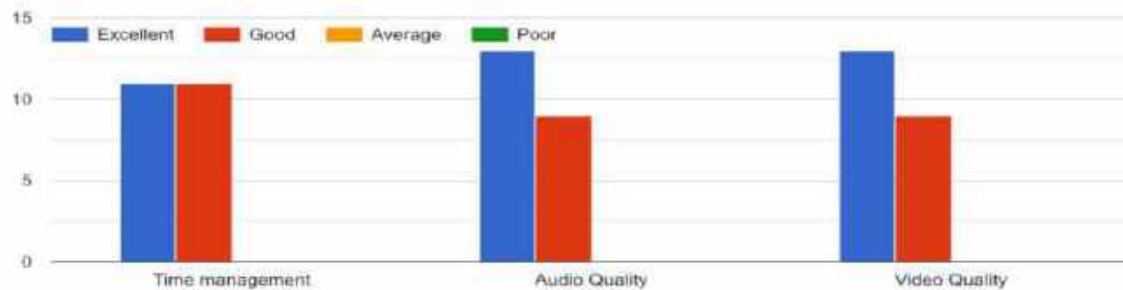
Class
22 responses



Feedback on speaker:



Feedback on organization



Meet Recording:

<https://drive.google.com/file/d/1ri9HfAM6u-I-hYHs5hqxGHIIMXaWB1II/view?usp=sharing>

Feedback

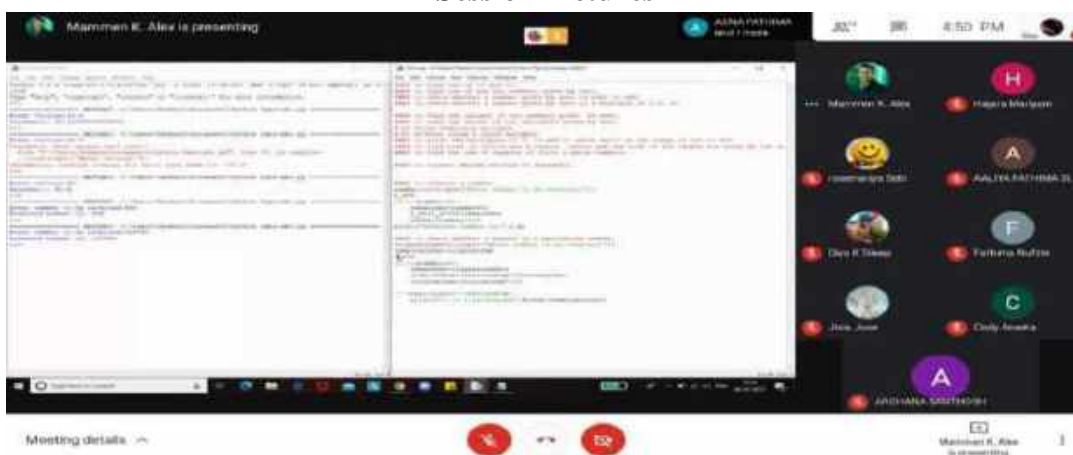
https://docs.google.com/spreadsheets/d/1cQWCPzhUWa7GtHxPP9Ui4jT-Mdg-JDm9Jj_u52dRVyY/edit?usp=sharing

Link:

9. TRAINING PROGRAMME ON ROBOTICS AND PYTHON 1-2-2021 TO 6-2-2021

A training programme on Robotics and Python Programming Language was organized for the Second year BSc Physics students under the DBT STAR College Scheme from 1-2-2021 to 6-2-2021. 27 students from the second year B.Sc. Physics batch participated in the sessions. Classes were conducted in both online and offline modes.

Session Pictures



20. FIZIKA 2021
26-02-2021 & 27-02-2021

As part of National Science Day Celebrations , the Postgraduate Department of Physics & Research Centre organized the annual Physics fest FIZIKA on 26th February 2021 and 27th February 2021. The events were funded by Academy of Physics Teachers (APT) and DBT. Various programs such as webinar on the topic ”**Light Matter Interaction: A Quantum Revelation**” presented by Dr. Pius Augustine , Assistant Professor, Department of Physics, SH College, Thevara, for college students via Google Meet, school linkage program for the 7th standard students of SNDP Higher Secondary School, quiz competition for college students and innovative idea presentation competition were conducted. A total of 25 students participated in the Intercollegiate quiz competition held via Quizizz and 76 active listeners were present during the Webinar.

FIZIKA 2021 INTERCOLLEGIATE QUIZ COMPETITION VIA QUIZZZ		
RESULTS		
Winners	Institute	Position
ANEESH. KM	Govt college chittur	1
IRIN SHAJI	St. Xavier's College for Women, Aluva	2
KISHOR KUMAR K	Govt college chittur	3

Brochures and Program Pictures

Rules & Regulations

Quiz Competition in Association with the College Quiz Club

- Online Quiz Competitions will be held separately for school students using Google forms and college students using Quizizz respectively.
- Students must submit their student identification if they qualify for the final prize money.
- In case of a tie, a tie breaker session will be held for the selected top scorers.

Innovative Ideas Presentation Competition

- A PPT must be made highlighting the student's ideas on the theme: Scientific ideas to make daily life easier.

[Click here to upload your ideas](#)

Webinar on Light Matter Interaction: A Quantum Revelation

- Registration must be made for reviewing your Google Meet link. Only the first 100 participants will be able to attend the live meet. It will be first come first serve basis.

[Click here to Register for the Webinar](#)

Prize Details (Only College Quiz and Idea Presentation Competition)

First Prize - Rs. 100/-
Second Prize - Rs. 50/-
Third Prize - Rs. 20/-

For further details contact:
physics@stxavierosaluva.ac.in

National Science Day 2021

"FIZIKA 2021"

-----Supported By-----



ACADEMY OF
PHYSICS
TEACHERS HERALA



Department of
Biotechnology,
GOVERNMENT
of India

DBT STAR COLLEGE SCHHEME

Organized by

**Physics Association,
Post Graduate Department of
Physics & Research Centre**



St. Xavier's College for Women, Aluva, 683101



We need a spirit of victory, a spirit that will carry us to our rightful place under the sun, a spirit which can recognize that we, as inheritors of a proud civilization, are entitled to our rightful place on this planet. If that indomitable spirit were to arise, nothing can hold us from achieving our rightful destiny.
- C.V. Raman

Respected Sir/Madam,

The Postgraduate Department of Physics & Research Centre, St. Xavier's College for Women, Aluva is organizing "FIZIKA 2021" as part of National Science Day Celebrations.

With great pleasure we cordially invite the participation of students from your institution for the event.


Coordinator

Ms. Shreya Jose




Head of the Department

Dr. Shreya Xavier

FIZIKA 2021
Programme Schedule

On 26 February 2021

- **Online Quiz competitions** for school and college students.
- **School Enrich Programme** for VI standard students on the topic **Heat & Pressure** (Academic Extension Programme).

On 27 February 2021

- **Innovative Idea Presentation Competition** (Theme: **Scientific idea to make daily life easier**).
- **Workshop** for Physics students on the topic **Light-Matter Interaction: A Quantum Revolution** by Dr. Poo. Rajagopal, Assistant Professor, Department of Physics, St. Xavier's College, Thiruvananthapuram. <https://www.google.com/search?q=1000444>

Organizing Committee

- Dr. Sheena Akhter (HOD)
- Ms. Leena Deenja N.O.
- Dr. Jishy Mathew
- Dr. Vinod George
- Dr. Sujatha N.V. (Girls Club Coordinator)
- Ms. Dhanya Jose (Association Secretary & Girls Club Coordinator)
- Dr. St. Eliba Rajee
- Ms. Poojima S. Shenoy



Post Graduate Department of Physics & Research Centre
St. Xavier's College for Women, Aluva
Re-accredited by NAAC with A grade, CGPA 3.33
ISO 9001:2015 certified
(Affiliated to Mahatma Gandhi University, Kottayam, Kerala)

Organises,

INTER COLLEGIATE QUIZ COMPETITION

For Physics Students as part of National
Science Day Celebrations

on
26 February 2021
Via QUIZZZ



[CLICK HERE TO REGISTER!](#)

Cash Awards:-

First prize: Rs. 750/-
Second prize: Rs. 500/-
Third Prize: Rs. 250/-

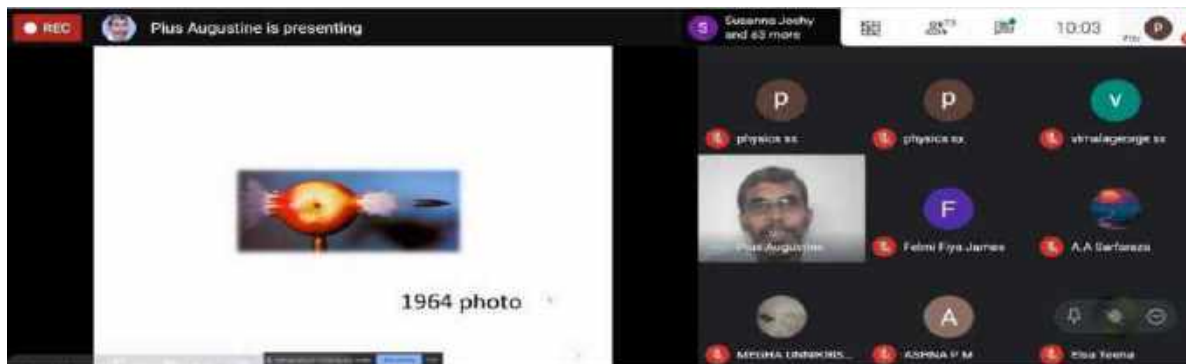
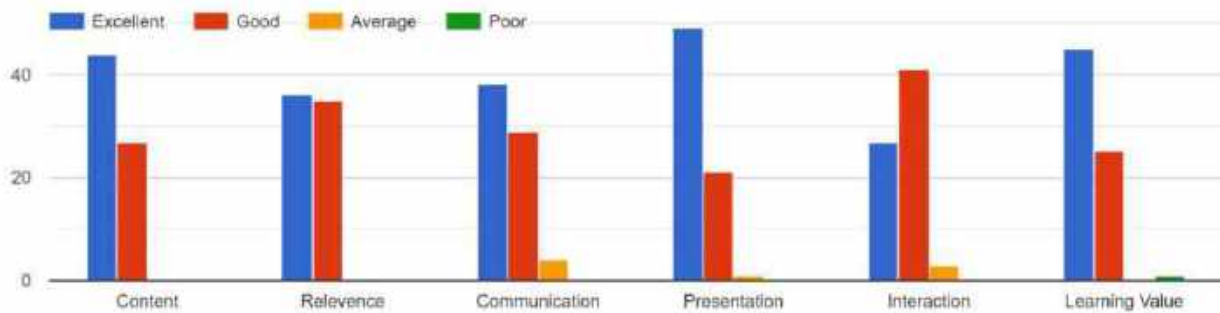
For more details contact us on:
physics@stxaviersaluva.ac.in

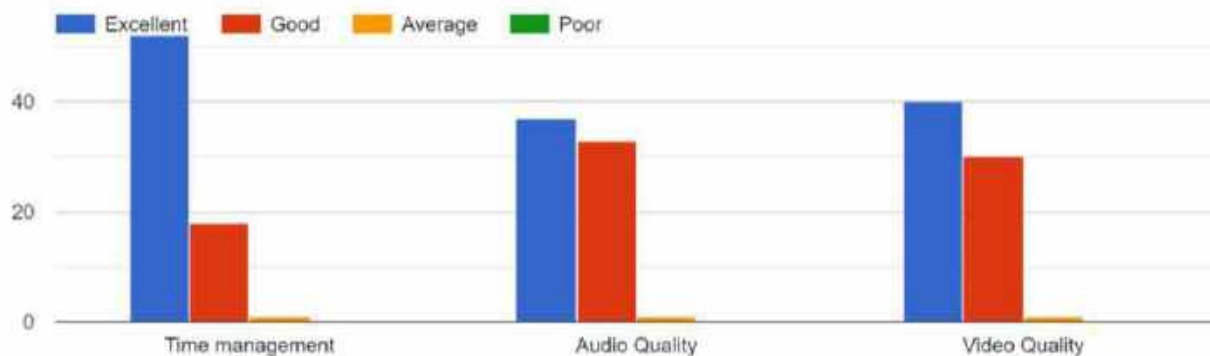




Feedback for Webinar

Feedback on speaker:





Webinar Meet Recording: https://drive.google.com/file/d/1EzF2clPAzcP-b9HUoE1zpDxM2Xae_gR5/view?usp=sharing

Webinar Feedback Link:

https://docs.google.com/spreadsheets/d/1gzNNTGFllumYzlZ_SC9b8cxGYMZO1nDN4HG2lvdMLpo/edit?usp=sharing

Quiz Participant list & Results:

https://docs.google.com/spreadsheets/d/1FA9bIEVFz_ohRf4a2-kVs0OLVOf4sY0ptBo5Ar4UYEE/edit?usp=sharing

21. WORKSHOP ON ARTIFICIAL INTELLIGENCE 17-3-2021

A Workshop on Artificial Intelligence was organized by the Post Graduate Department of Physics and Research Centre, on 17-3-2021 via Google Meet, in association with IEDC of St. Xavier's College for Women. Mr. Siju KS, Associate Professor, SAINTGITS College of Engineering Kottayam was the Resource person for the program. There were participants during the live meet and many more viewed the session through YouTube. A total of 66 participant feedback was collected.

Brochure and Session Pictures

INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CENTRE
St. Xavier's College for Women, Aluva
Re-accredited by NAAC with A grade, COA 3.07
ISO 9001:2015 certified
(Affiliated to Mahatma Gandhi University, Kottayam, Kerala)

Department of Physics and Research
Centre jointly with IEDC
Organizes,
Online Workshop on

"Artificial Intelligence"

SIJU K. S
Associate Professor
SAINTCITS College of Engineering
(Autonomous)

On 17-03-2021 at 10:30 AM
Via
Google Meet

 [Click here to join the meet on the day](#)

Faculty Coordinators: Dr. Sheena Xavier (HOD & IQAC Coordinator)
Ms. Dhanya Jose
Student Coordinators: Amrithalakshmi Poudhar
Ann Venesa Mendez
IEDC Coordinators: Dr. Revathy S & Shereena John

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meet.google.com/bat-wlyy-omtaulhwev1

REC

Workshop on Artificial Intelligence

People (40)

- Marya Munkari
- Maria Morth
- MEGHA MOHRS
- Sabreza Mti
- SIJUSWAMY MATHE
- Sony Michael

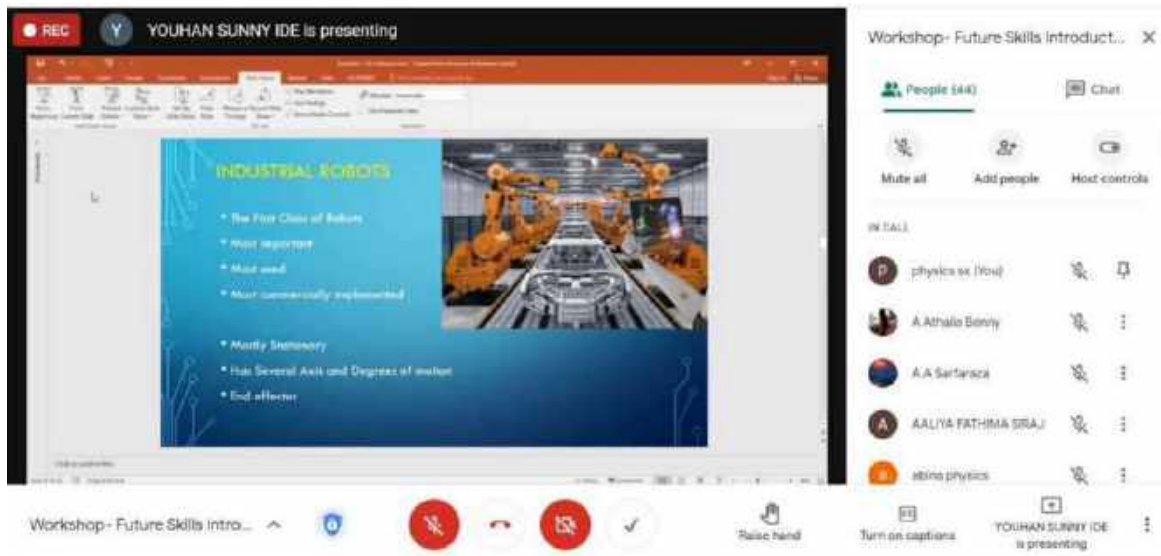
Workshop on Artificial Intellig... ^

Turn on captions Present new



22. WORKSHOP ON FUTURE SKILLS- INTRODUCTION TO ROBOTICS ON 19-3-2021

A workshop on Future Skills-Introduction to Robotics was organized by the Department of Physics in association with the Innovation and Entrepreneurship Development Centre on 19-03-2021. Dr. Youhan Sunny, Assistant Professor, SAINTGITS College of Engineering, Kottayam was the Resource person for the program. A total of



participants were present for the meet.

f 64

Brochure

The brochure is for an online workshop titled "Future Skills - Introduction to Robotics". It is organized by the Department of Physics and Research Centre jointly with IEDC. The workshop is led by Dr. Youhan Sunny, Assistant Professor at SAINTGITS College of Engineering (Autonomous). The workshop is scheduled for 19-03-2021 at 10:30 AM via Google Meet. A red arrow points to a link: "Click here to join the meet on the day". The brochure also lists the Faculty Coordinators (Dr. Sheenu Xavier, HOD & IQAC Coordinator; Ms. Dhanya Jose), Student Coordinators (Ann Venessa Mendez, Amruthalakshmi Poudhar), and IEDC Coordinators (Dr Revathy S & Shereena John). At the bottom, it says "Follow us on" with icons for Facebook, Twitter, Instagram, and YouTube.

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St. Xavier's College for Women, Alwayar
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ISO 9001:2015 certified
Affiliated to St. Xavier's College University, Kottayam, Kerala

INSTITUTIONS REGULATORY COUNCIL
Kerala

Department of Physics and Research
Centre jointly with IEDC
Organizes,
Online Workshop on



**"Future Skills -
Introduction to
Robotics"**

Dr. Youhan Sunny
Assistant Professor
SAINTGITS College of Engineering
(Autonomous)

On 19-03-2021 at 10:30 AM
Via
Google Meet

 [Click here to join the meet on the day](#)

Faculty Coordinators: Dr. Sheenu Xavier (HOD & IQAC Coordinator)
Ms. Dhanya Jose
Student Coordinators: Ann Venessa Mendez
Amruthalakshmi Poudhar
IEDC Coordinators: Dr Revathy S & Shereena John

Follow us on :    

Feedback & attendance link: https://docs.google.com/spreadsheets/d/1ZIP_g-GsSShyYKM3BKNfpK2KLXex6JRCy_WjDCEZ23k/edit?usp=sharing

23.NATIONAL WEBINAR ON VIRTUAL LABS IN EXPERIENTIAL LEARNING IN SCIENCE DOMAINS 20/03/2021

In association with National Institute of Technology Karnataka, Surathkal for Teachers and Research Scholars on 20-03-2021 the Post Graduate Department of Physics & Research Centre organized a National Webinar on Virtual Labs in Experiential Learning in Science Domains Via Google Meet for Faculty and Research Scholars. There were 58 listeners for the live meet and the YouTube link of the meet recording was also shared to all the registered participants for which got 347 views as of 27/04/2021.

Brochure

and

event

pictures:

Post Graduate Department of Physics & Research Centre
St. Xavier's College for Women, Aluva
Re-accredited by NAAC with A grade, COPA 3.33
(AIU 3001:3003 verified)
Affiliated to Mahatma Gandhi University, Kottayam, Kerala

Jointly with NITK Surathkal, Organizes

**A National Webinar on
VIRTUAL LABS FOR
EXPERIENTIAL LEARNING IN
SCIENCE DOMAINS**

SATURDAY, 20 MARCH 2021
10:00 AM - 12:00 NOON
VIA

Prof. Dr. Sr. Geeghanamma Xavier (Principal)

Click here to register.

OR use

Expected Participants: Faculty & Research Scholars
from all areas of Basic and Applied Sciences



RESOURCE PERSON



**PROF. K.V.
GANGADHARAN**

PARTICIPATING INSTITUTE
COORDINATOR - VIRTUAL LABS,
HEAD - CONTROLLED SYSTEM DESIGN
& PRODUCTION IN MECHANICAL
ENGINEERING, NITK SURATHKAL
Email: solve@nitk.edu.in

Coordinators:

- Dr. Vinola George (Physics)
- Ms. Dhanya Jose (Physics)
- Dr. Anu Anto (Zoology)
- Dr. Shreeya Foster (Chemistry)
- Ms. Sakamala M.P. (Microbiology)

Organizing Committee:

- Dr. Sheena Xavier (MCO, Physics)
- Ms. Leena George M G
- Dr. Jeezy Mathew
- Dr. Sujatha N.V.
- Dr. Sr. Elia Raina CTC
- Ms. Purnima B. Shetty

Meet - National Webinar-1

meet.google.com/dji-hdx-byy

REC Gangadharan K V is presenting

Purnima B. Shetty and 67 more

10:26 AM

Gangadharan K V

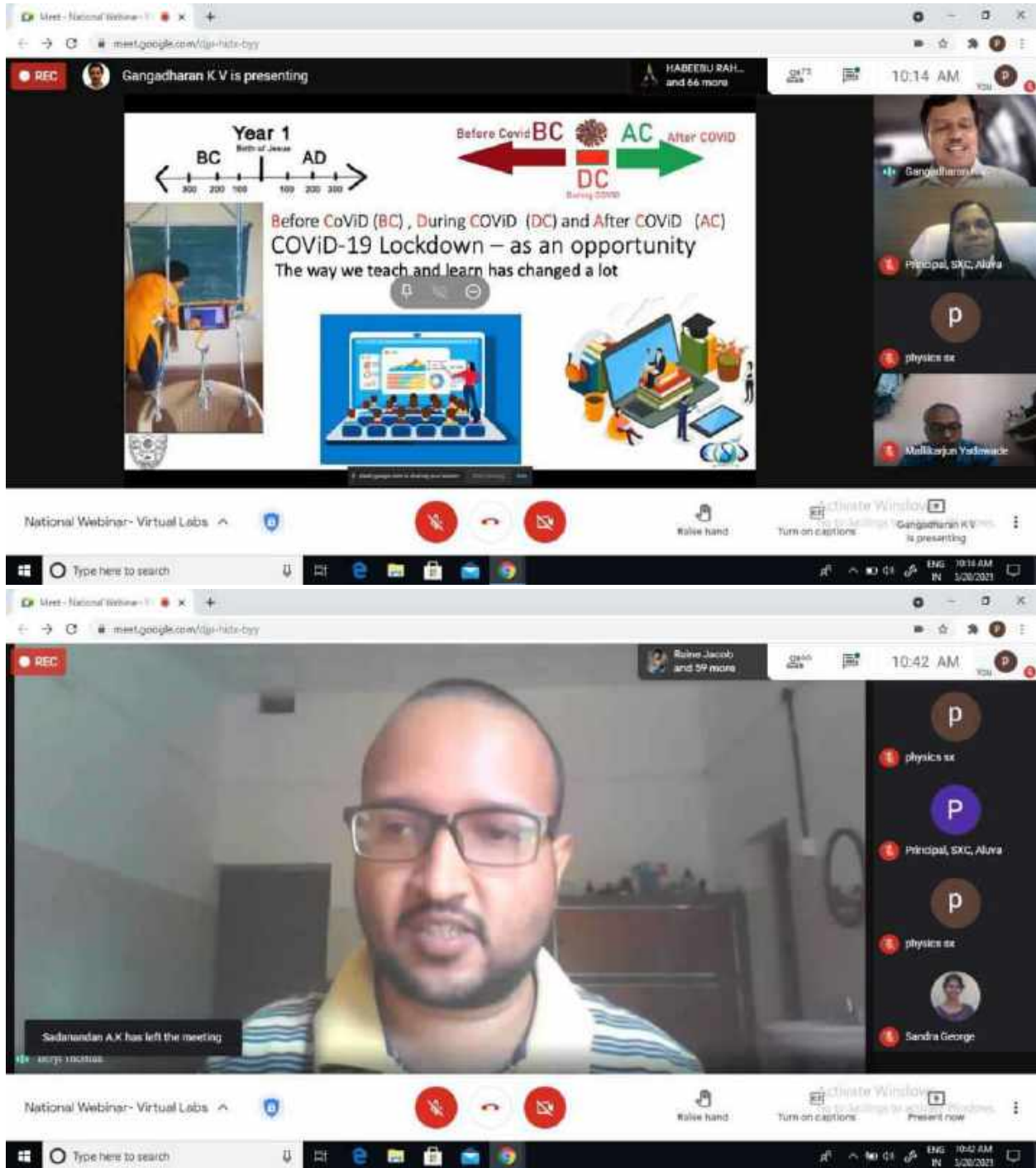
National Webinar- Virtual Labs

Wake hand Turn on captions

Activate Windows
Go to Settings to activate Windows.
Gangadharan K V is presenting

Type here to search

ENG 10:26 AM
IN 3/20/2021



Feedback

&

Attendance

link:

<https://docs.google.com/spreadsheets/d/1XijN6jM93-PJv7VuvR3ER5SAWptTHX5RGhrUCm-qHvY/edit?usp=sharing>