

## Association Activity : 2021-2022

- Independence day celebration
- Onam Celebration
- Report of Introduction to Intellectual Property Rights
- Space Week Celebration
- Skill Enhancement Program on Brochure Designing in collaboration with alumni
- Career Orientation webinar
- X'mas celebration
- Academy of Physics Teachers Talent Search Examination 2021-22
- Felicitation of M.Sc. I Rank holder
- Association Inauguration
- extension programme
- Two Days Workshop on Analysing Techniques in TEM & XPS

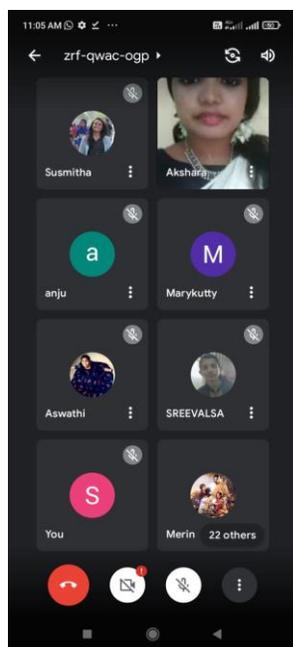
## Independence Day Celebration

The Department of Physics, St. Thomas College, Ranni celebrated the 75<sup>th</sup> Independence day on 15<sup>th</sup> and 16<sup>th</sup> August 2021 in virtual platform. Our HoD, Prof. Anju Joseph delivered the presidential address and Dr. Suresh M.K conveyed the Independence day message . A patriotic song competition and a quiz competition related to the Independence day of our country was conducted. Vineetha Purushothaman of I M.Sc Physics won the first prize for patriotic song and Akash P S, II DC Physics got the first prize for Quiz competition.



## Onam Celebration

The department of Physics, St. Thomas College, Ranni organized a virtual onam celebration on 18<sup>th</sup> August. The program was organized and guided by I PG students. Amidst the covid pandemic, the meeting was held on virtual platform. Many cultural activities were organized by the department. Our HoD, Prof. Anju Joseph conveyed Onam message . Various competitions like Malayali Manka, Malayali sreeman, Onappattu were conducted. Goutham Vijay, I M.Sc Physics won the first prize for Malayali sreeman, Silpa Mohan, II DC Physics for Malayali manka and Aparna Thampi, II DC Physics got the first prize for Onappattu competition.



## Ozone Day Celebration 2021

The International Day for the Preservation of the Ozone Layer also known as ‘The World Ozone Day’ is celebrated every year across the globe on 16<sup>th</sup> of September. The main objective of ozone day celebration is to remind the students about the depletion of the ozone layer and its dangers. The ozone layer protects us from the harmful ultraviolet rays from the sun. Unfortunately, our race for maintaining a high quality of life has led to a depletion in the ozone layer. On 1<sup>st</sup> January 1989 the Montreal Protocol came into force to prevent the depletion and reduce the usage of substances that cause holes in our protective blanket. Sustaining the Ozone layer is hence the collective responsibility of all the nations.

Department of Physics ST. Thomas College, Ranni organized ozone day celebration program on 16<sup>th</sup> September 2021. The program was held online. Ms. Soumyamol K S delivered the welcome speech. Prof. Anju Joseph, HoD of Physics gave the key note address. She briefed about the Ozone layer and its importance. She also discussed various causes behind the Ozone depletion and suggested various solutions in making Earth a better and sustainable planet. Dr. Suresh M K, Asst. Professor, Dept. of Physics gave the felicitation. He also reminded the students to be aware of their role as a responsible citizen. Student coordinator Nikhil Ravi gave vote of thanks. Students from Department of physics actively participated in the program.

After the formal session there was a quiz competition for the whole college. Participants were from Physics, Chemistry, Zoology and History departments. In this competition Neeraja Krishnan , Dept. of Chemistry won the first prize. Aravind Krishna G , Dept. of Physics got the second prize. Prizes were distributed to the winners of this competition

### Report of Introduction to Intellectual Property Rights

Department of Physics St. Thomas College Ranni in association with Innovation and Entrepreneurship Development Center organized a webinar on Introduction to Intellectual Property Rights on 01-10-2021 at 2.30 PM. Prof. Anju Joseph , Head of the Department delivered the Welcome Speech. Principal Prof. Dr. Aleyamma Kuruvila presided over the session. **Dr. Grace Thomas** Dean of Research, S H College Thevara delivered the Keynote address. Prof. Jikku James, Nodal officer , IEDC , St. Thomas College Ranni gave the Felicitation to the session. Around 65 participants are presented in the webinar.

The session was very informative and students are actively participated in the seminar. Sreevalsa K , Assistant Professor, Department of Physics gave the vote of thanks.

Registration

Link:

<https://docs.google.com/forms/d/e/1FAIpQLSfgxtTnsegWVijvChRN6yvC9pSOYyKO5kesq4LEdzGws7Ovgw/viewform>

Platform : Google Meet

Meeting Link: <https://meet.google.com/iij-fqgt-kbc>



**ST. THOMAS COLLEGE, RANNI**

**DEPARTMENT OF PHYSICS**

IN ASSOCIATION WITH  
**INNOVATION AND ENTREPRENEURSHIP  
DEVELOPMENT CENTER (IEDC) .**

**ORGANIZING  
WEBINAR ON INTRODUCTION TO INTELLECTUAL  
PROPERTY RIGHTS**



**DR. GRACE THOMAS**

Dean of Reasearch, Sacred Heart college, Thevara

**DATE: 1/10/2021**

**TIME : 2:30 PM**

**Coordinators:**

Mrs. Anju Joseph  
Mrs. Sreevalsa  
Jikku James (IEDC Nodel officer)

**Organizing Committee :**

Principal Dr. Aleyamma kuruvila  
Mrs. Anju Joseph ( HoD)  
Dr. Suresh M K  
Mrs. Merin Jose  
Dr. Marykutty James  
Ms.Soumyamol K S  
Mrs. Sreevalsa K

**Registrational link:**

<https://forms.gle/YbrtgH9rTNGHymA5A>

## Space Week Celebration

The Department of Physics, St. Thomas College, Ranni celebrated World Space Week 2022. The theme of the program this year was 'Women in Space'. Dr. Suresh M.K, faculty of the department gave a talk on importance of space week celebration and innovations in space. Our students and faculties registered for ISRO's online space week celebration program and participated in it. The program was very informative. We conducted inter departmental Quiz and power point presentation competitions with the theme 'Women in Space'. Krishna Prabha III DC Physics and Jobin John III DC physics won the prizes respectively.



## Skill Enhancement Program on Brochure Designing

### IN COLLABORATION WITH ALUMNI

Brochures are essential marketing tools, which establish brands and help them cut through the clutter from the competition. A great design will compel your audience to read all about what you're doing.

Department of Physics ST. Thomas College, Ranni organized a brochure designing course using photoshop as a part of skill enhancement program. It was held from 14<sup>th</sup> November 2021- 17<sup>th</sup> November 2021 in online platform. Our Alumni Sarath Mohan, was the resource person. Mrs. Anju Joseph, HoD of Physics delivered the welcome speech. Around 38 participants from various colleges, including teaching faculties actively joined the program.

Mr. Sarath Mohan demonstrated how to use photoshop to create a brochure. It was a hands own training program. Throughout the course, he put each concept into context as he steps

through the creation of a new course's brochure. He explained how to prepare photos, logos, fine tune texts and adding links etc. Upon wrapping up this course, many of the participants were able create a stylish brochure of their own and got a clear-cut idea about the designing part of a brochure. At the end of the program, Ms. Soumyamol K S, faculty coordinator, Department of Physics gave vote of thanks.

### **Skills acquired from the program**

Participants gained an experience in using Adobe Photoshop

Participants were able to design brochures using Adobe Photoshop

 **ST. THOMAS COLLEGE, RANNI**  
Affiliated to MG University, Kottayam  
NAAC re-accredited with B-grade

**DEPARTMENT OF PHYSICS  
SKILL ENHANCEMENT  
PROGRAM  
“BROCHURE DESIGNING”**

RESOURCE PERSON



**SARATH MOHAN**  
Alumni (PG Department of Physics)

14 - 17 NOV 2021  
TIME : 3 - 4 PM

 Google Meet

[Click here to join on](#)

Registration link : [Tap here](#)

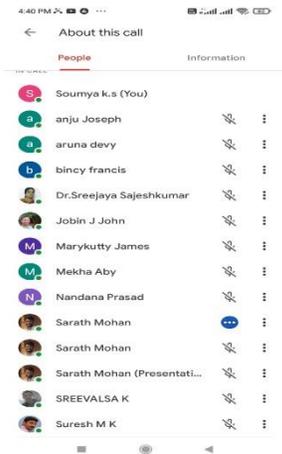
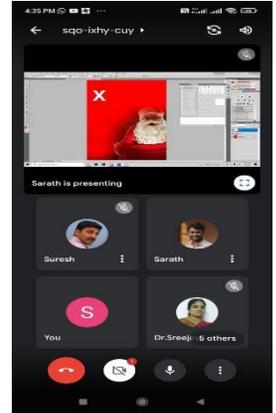
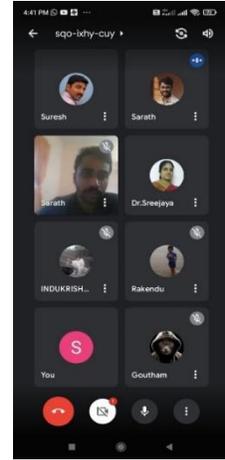
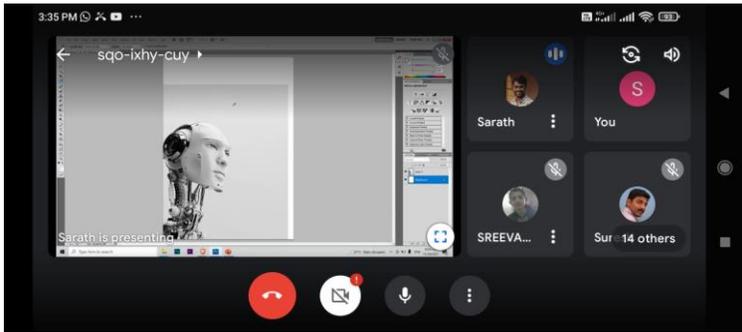
Student co-ordinator  
Jobin J John

Staff Co-ordinator  
Ms. Soumyamol K S

Principal  
Dr. Aleyamma Kuruvilla

HoD  
Mrs. Anju Joseph

Contact No. : 8848711661



Registration link

[https://docs.google.com/forms/d/e/1FAIpQLSdfqctCrS1Wwklb2VLHeHI1s4wNL\\_wUeqUkS8ItSfx8QAdQGg/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLSdfqctCrS1Wwklb2VLHeHI1s4wNL_wUeqUkS8ItSfx8QAdQGg/viewform?usp=sf_link)

Meeting link

<https://meet.google.com/sqo-ixhy-cuy>

Meeting code: sqo-ixhy-cuy

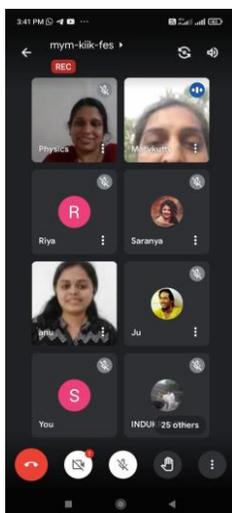
Feedback link



NAAC reaccredited  
with (1).pdf

## Career Orientation webinar

A career orientation webinar was conducted on 21 November 2021 in collaboration with Physics Alumni Association. The resource person was Mrs Anu T. V, our alumna (M.Sc 2004-2006). Now she is working as an Assistant Administrative officer at ISRO. During the session Anu talked about the career opportunities at ISRO and different options possible at ISRO after Msc and Bsc courses. She cleared all the queries raised by the students regarding it.



## Christmas Celebration

Our department celebrated christmas on 23<sup>rd</sup> December. Our HoD, Prof. Anju Joseph delivered the Christmas message. The Christmas cake was cut and shared among the students. III DC students and PG students organized christmas carol songs and other cultural activities.



## Academy of Physics Teachers Talent Search Examination 2021-22

(APT TSE- 21-22)

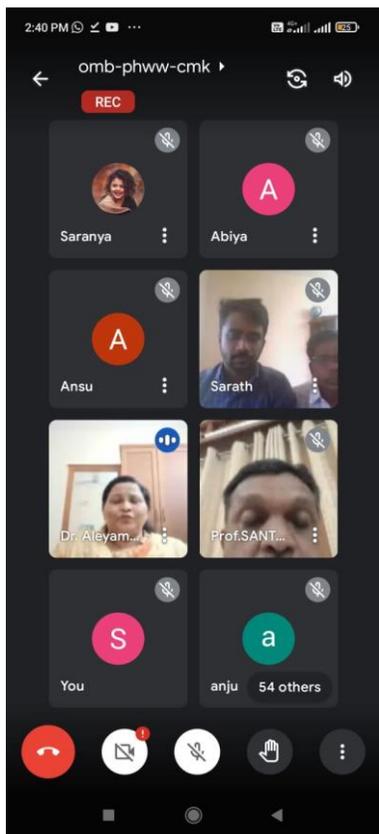
Department of Physics, St. Thomas College, Ranni conducted APT TSE in collaboration with APT, Kerala. 18 students from the department attended this exam. Model questions and answers were given to the students for preparing for the exam. Preliminary section of the exam was on 26<sup>th</sup> December 2021. Ms. Soumyamol K S was the centre co-ordinator of our college. The exam was conducted online and it was a nice experience for the students who are to attend various competitive exams in the future.

Sl. No	Name of the student	Registration number of the student	Name of Center/ College
1	Mahitha Girish	STC RNI 001	St. Thomas College, Ranni
2	Josena Mary George	STC RNI 002	St. Thomas College, Ranni
3	Sona Jino	STC RNI 003	St. Thomas College, Ranni
4	Jobin J John	STC RNI 004	St. Thomas College, Ranni
5	Arya Ashokan	STC RNI 005	St. Thomas College, Ranni
6	Gayathri Rajagopal	STC RNI 006	St. Thomas College, Ranni
7	Saranya P Kumar	STC RNI 007	St. Thomas College, Ranni
8	Krishna Prabha S	STC RNI 008	St. Thomas College, Ranni
9	Nandana Muraleedharan	STC RNI 009	St. Thomas College, Ranni
10	Aravind Krishna G	STC RNI 010	St. Thomas College, Ranni
11	Nandhu S Nair	STC RNI 011	St. Thomas College, Ranni
12	Sreeraj K J	STC RNI 012	St. Thomas College, Ranni

13	Sindhumol	STC RNI 013	St. Thomas College, Ranni
14	Bibin Abraham	STC RNI 014	St. Thomas College, Ranni
15	Indukrishna R.	STC RNI 015	St. Thomas College, Ranni
16	Liyanna K. Sunil	STC RNI 016	St. Thomas College, Ranni
17	Mekha Jayan	STC RNI 017	St. Thomas College, Ranni
18	Nandana Nadh	STC RNI 018	St. Thomas College, Ranni

### **Felicitation to the M.Sc. I Rank holder**

Our M.Sc. student Mr. Sarath Mohan ranked first for the M. G university M.Sc. Physics Examination 2019-2021. We organized a virtual program to felicitate Mr. Sarath Mohan. Our manager Dr. Santhosh... Principal Dr. Aleyamma Kuruvilla and our Ho.D Prof. Anju Joseph and many other faculties and students were present in the meeting. He expressed his gratitude to the teachers and to the college for his achievement and his words were indeed encouraging for our current students.



## Association Inauguration

The most awaited one was the Inaugural function of Physics Association 2020-2021. It was held on 13<sup>th</sup> January 2022 in the College seminar hall. The meeting started with a prayer song by Shijimol S. of III DC Physics.

The chief guest was Dr. Noble P Abraham, Assistant Professor, Department of Physics, Marthoma College, Thiruvalla. Our HoD, Prof. Anju Joseph delivered a warm welcome speech. She introduced our chief guest citing some of his achievements. Our principal Dr. Aleyamma Kuruvilla presided the meeting. Next was the inaugural session. Dr.Noble P Abraham lighted the lamp and inaugurated the session.

In his inaugural address Dr. Noble spoke about the development of science and technology and its advantages and disadvantages. After the inaugural session, prize distribution for the different competitions held during the previous academic year was also held.

After the inaugural session, he gave a career guidance talk, “You have Options : Choosing a Career in Physics”. In his talk he explained about the career options after B.Sc and M.Sc Physics. Students got a benefit to know about the current research areas. He familiarized many national level research institutes and the different programmes offered by them.

Also, he talked about the eligibility criterias for different programmes. He motivated the students to come forward to the field of research. The talk was very informative and our students got an opportunity to learn about new and emerging fields in physics. Vote of thanks was proposed by Jobin John (III DC Physics). During the afternoon session, students conducted various cultural programmes. The programme came to an end at 3.15 p.m.



## Extension Program

Department of Physics, St. Thomas College, Ranni organized an extension programme to students of CMS Community UP School, Pazhavangadi, Ranni on 19/01/2022. Seven students from the department actively coordinated the program. They explained the importance of science and motivated students through interesting experiments. The session was interactive and was fruitful to students. The program included mind blowing games too. Headmistress Mrs. Suja Mercy Varghese conveyed special thanks to our student coordinators. Ms. Soumyamol K S and Mrs. Sreevalsa K were the faculty coordinators of the programme.



## [Science Day Celebration 2021](#)

The National Science Day is celebrated to commemorate the discovery of Raman Effect. The main objective of this day is to remind the students about the importance of science. It is also celebrated to discuss all the issues and to implement new technologies for the development in the field of science. The theme of the year was ‘Integrated approach in Science and technology for the sustainable future’.

Department of Physics St. Thomas College, Ranni organized the National Science Day Celebration from 26<sup>th</sup> - 28<sup>th</sup> February 2022. The programs were held online and in offline modes. Asst. Prof. Anju Joseph, HoD of Physics delivered the welcome speech in

the online meeting. Dr. Aleyamma Kuruvilla, Principal, St. Thomas College, Ranni presided the meeting. Dr. Sreelatha K.S, Asst. Professor, Govt. Polytechnic College, Palakkad, gave the keynote address. She briefed about the science day and its importance. She also discussed about the integrated approach in science and technology for the sustainable future. Nikhil Ravi, second year P.G student gave the vote of thanks. Students from Department of Physics actively participated in the program.

On 28<sup>th</sup> February 2022, we arranged a poster designing competition for the whole college. Topic of this competition was ‘Negative Impact of Science and Technology’. Participants were from Physics, Chemistry, and Commerce departments. In this competition Riya Fathima, II P.G Physics won the first prize, Alen P R, I DC Physics got the second prize. Prizes were distributed to the winners of this competition.

As part of this program an intercollegiate video presentation competition on “science and technology for sustainable future’ was held. In this competition Navya John, II P.G Physics, won the first prize and Riya Fathima, II P.G Physics got the second prize.

ST. THOMAS COLLEGE, RANNI  
DEPARTMENT OF PHYSICS  
**NATIONAL SCIENCE DAY CELEBRATION 2022**  
In Collaboration with Academy of Physics Teachers, Kerala  
*Theme: Integrated Approach in Science and Technology for Sustainable Future*

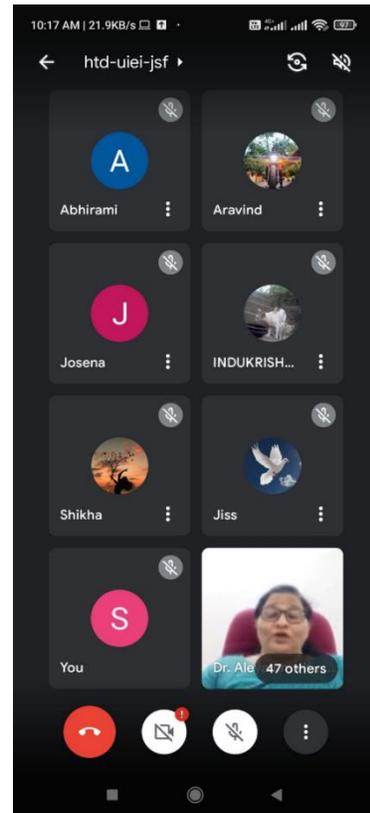
**FEBRUARY 26**  
Talk by Dr. Sreelatha K S  
Assistant Professor  
Govt. Polytechnic College, Palakkad  
Research Guide, Govt. College, Nattakom  
[click here to join at 10:00 am](#)

**FEBRUARY 28**  
**Inter collegiate Presentation Competition**  
Topic: Integrated Approach in Science and Technology for the Sustainable Future  
Maximum time: 7 minutes  
Submit the video presentation to [stphysics01@gmail.com](mailto:stphysics01@gmail.com) on or before 28/02/2022  
Last date of registration: 27/02/2022  
Registration Link: <https://forms.gle/X31LbMfotGg51bs>

Prizes for first & second place winners

Staff Coordinators  
Dr. Marykutty James  
Soumyamol K S  
Student Coordinator  
Krishna Prabha S

Dr. Aleyamma Kuruville (Principal)  
Anju Joseph (HoD)



## 1. Presentation Competition- Photos





## 2. Poster Design Competition- Photos



## Two Days Workshop on Analysing Techniques in TEM & XPS

PG Department of Physics in association with IDEAGORA, St. Thomas College Ranni conducted two days workshop on Analysing Techniques in TEM and XPS on 28-03-2022 & 29-03-2022 at 2pm. Mrs. Anju Joseph, Head of the Department, Department of Physics, gave a warm welcome to the resource person and participants. Dr. Julin Joseph, Assistant Professor, St. Joseph College for Women handled the two session. The session focusses on PG Students and Research Scholars interested in the field of material science and trying to

find new things in their area of research. Student Coordinator Navya John and Sreevalsa K, Assistant Professor, Department of Physics delivered the vote thanks in first and second sessions

Meeting Link:-<https://meet.google.com/ijy-jpfv-khq?hs=122&authuser=3>



The poster features a dark blue background with a circular inset on the left showing a 3D molecular model. At the top, there are logos for St. Thomas College Ranni, IDEAGORA (with the tagline 'GREAT IDEAS'), INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CENTRE, and INSTITUTION'S INNOVATION COUNCIL. The main text is centered and reads: 'PG DEPARTMENT OF PHYSICS IN ASSOCIATION WITH IDEAGORA ST. THOMAS COLLEGE RANNI Organizing Two days Workshop on Analysing Techniques in TEM & XPS'. Below this is a circular portrait of Dr. Julin Joseph, Assistant Professor at St. Joseph College for Women, Alappuzha. The dates are 'Date:- 28-03-2022 & 29-03-2022', the time is 'Time:- 2 PM', and the platform is 'Platform :- Google meet'. A 'Click Here to Join' button with the Google Meet logo is positioned below the platform information. At the bottom, the coordinators and organizing committee members are listed.

**PG DEPARTMENT OF PHYSICS**  
IN ASSOCIATION WITH  
**IDEAGORA**  
**ST. THOMAS COLLEGE RANNI**

*Organizing*  
**Two days Workshop on Analysing Techniques in  
TEM & XPS**

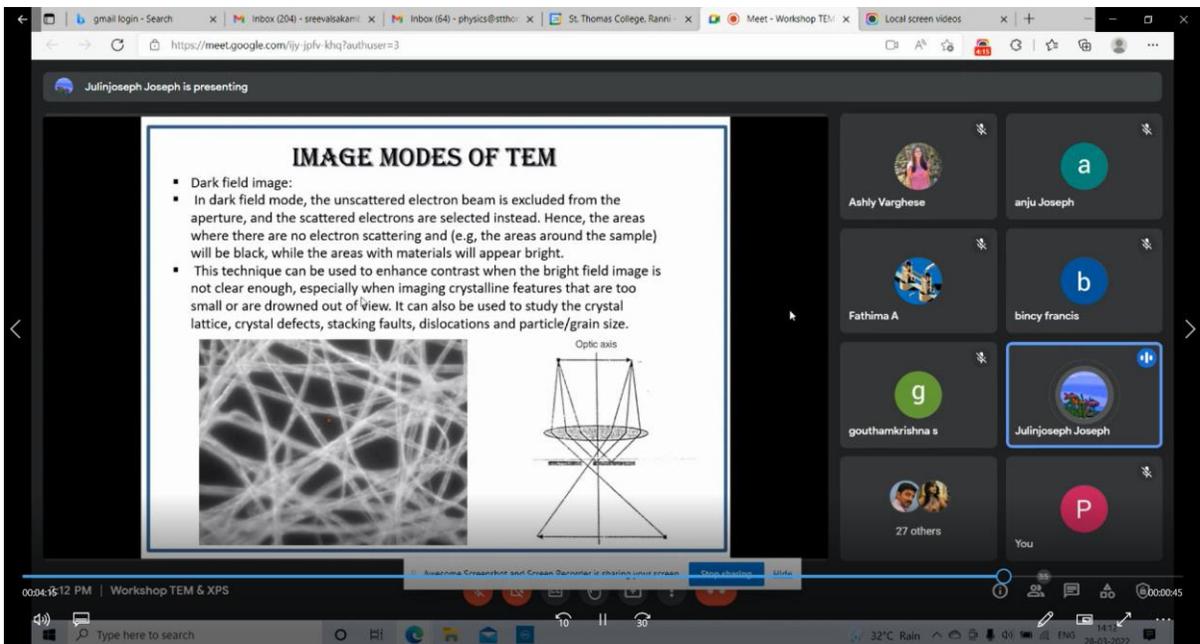
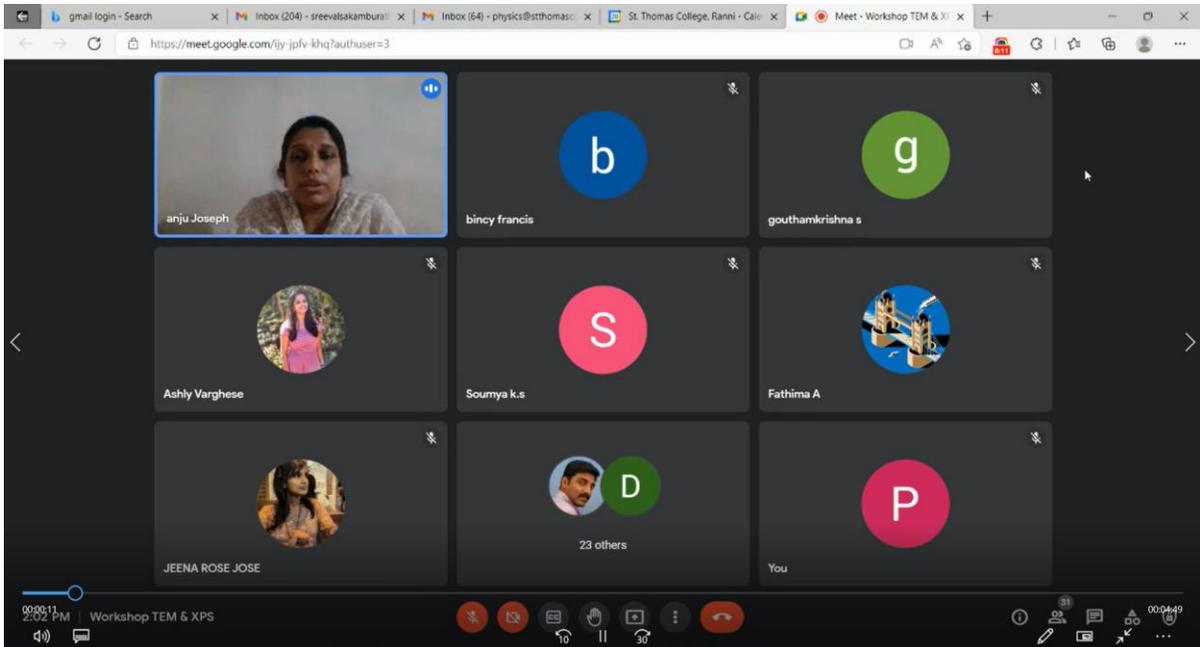
  
**Dr. Julin Joseph**  
Assistant Professor  
Department of Physics  
St. Joseph College for Women, Alappuzha

**Date:- 28-03-2022 & 29-03-2022**  
**Time:- 2 PM**  
**Platform :- Google meet**

 **Click Here to Join**

**Coordinators**  
Sreevalsa K (Dept. of Physics)  
Mr. Jikku James (IEDC & IIC Nodal Officer)  
Navya John (Student Coordinator)

**Organizing Committee**  
Dr. Aleyamma Kuruvilla (Principal)  
Mrs. Anju Joseph (HOD)



Julinjoseph Joseph is presenting

## TYPES OF PHOTO ELECTRON SPECTROSCOPIES

1. **Xray photoelectron spectroscopy (XPS)**-to study the energy of atomic-core electrons, also called photoelectron spectroscopy for inner shell (PESIS)
2. **Ultraviolet photoelectron spectroscopy (UPS)**; valence electrons energy levels especially bonding of molecular orbitals
3. **Two-photon photoelectron spectroscopy (2PPE)**; To study Valence band structure, gives better energy resolution than XPS and faster electron ejection than UPS
4. **Angle resolved photoemission spectroscopy (ARPES)**; to study the band structure of crystalline solids

2:05 PM | ijj-jpfv-khq

Julinjoseph Joseph is presenting

Functional Group	284	285	286	288	289	290	292
C-(C,H,S,N)							
C-C							
C-H							
C-O							
C-Cl							
C=O							
CHF							
N-C=O							
O-C-O							
CO <sub>2</sub>							
CF <sub>2</sub>							

2:12 PM | ijj-jpfv-khq