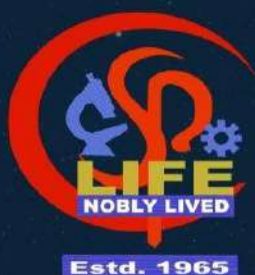


DEPARTMENT OF PHYSICS

YEAR

BOOK

2020 - 21



ST PAUL'S COLLEGE
KALAMASERRY

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FROM THE EDITOR'S DESK...

Education forever has been changed by the Covid-19 pandemic! World-wide billions of students are affected by closure of educational institutions. Teaching-learning process buckled when the pandemic struck us but we somehow bounced back to our feet, thanks to the technology options available! Teaching is undertaken remotely and through various digital platforms. But this sudden drift away from the classroom mode of teaching-learning has created an unrest in the minds of the stakeholders; will the face of education be changed for good even post-pandemic?

There has been a surge in the usage of video conferencing tools, virtual tutoring, various apps etc in the past year. The switchover was quite unplanned and rather rapid, so the experience of online learning- without a proper training, insufficient bandwidth and hardly any preparation is not a feel good one for all. Those who do not have access to reliable internet facility and/or technology are struggling to cope up with digital learning. Bridging this gap is a tough task because it is country specific and within a country it is income specific.

The uncertainty in education on one side and the experience of having to stay indoors without public interaction on the other, has taken a toll on the mental health of both the teaching fraternity as well as students. But we stood together and faced this challenge positively and we have transformed 2020-21 to be a fruitful one. The Department was buzzing with academic and extracurricular activities and we ensured our students get all the benefits that they would have got had they been at College. Proudly presenting before you a glimpse of all activities of the bygone year. Special thanks to the Student Editors Agatha Cyriac (II M.Sc. Physics), Devika R Nair (III B. Sc. Physics), Devika Nair (II B.Sc. Physics) and also to Chris Joseph and Emmanuel David (I B.Sc. Physics) for making this Year Book visually appealing.

Dr. Poornima N

DEPARTMENT OF PHYSICS- PROFILE

One of the major postgraduate and research departments of St. Paul's College, the Department of Physics has crossed several milestones since its inception. Starting with just a B.Sc. Physics programme, the Department has steadily progressed and presently is recognised as a research centre of Mahatma Gandhi University. Presently the department offers undergraduate and postgraduate programmes in Physics and we also have research scholars working towards their doctoral degree in our research centre.

With a team of young, energetic and committed faculty members, one lab assistant and a group of highly motivated students, the Department is all set to scale newer heights. The Department is equipped with adequate laboratory and computer lab facilities to cater to the needs of UG and PG students. The Department lays special emphasis on academics, which is evident from the consistent academic records of students and the quality of academic programmes organised for the benefit of students. Every year the Department ensures that students get the opportunity to interact with eminent Foreign/Indian scientists/scholars who are normally not available for frequent interactions. Interested students are given the opportunity to pursue internships at other institutes. The Department promotes extracurricular activities too on an equal footing which is evident from the student involvement every year in the College Union, NCC and NSS. We adopt adequate measures to ensure that every student irrespective of whether he/she is a fast/slow learner gets equal opportunities to learn and flourish. The department intends to equip students with additional skills making them more employable and to capitalize on the locational advantage of St. Paul's College.

VISION

To ensure equal opportunities to all students and to inculcate scientific temper, humanitarian values and a sense of social responsibility.

MISSION

To capitalize on the locational advantage of this College and offer support to students by equipping them with additional skills making them employable.

MILESTONES

1965- Pre-Degree

1980- B.Sc. Physics

1984- M.Sc. Physics

1985- Research Centre of Mahatma Gandhi University

TEAM OF FACULTY



Dr. Rajeshmon V G

Head of the Department

Research interest: Thin Film Solar Cells

- ❑ **Member, Vigilance Squad, University Examinations, Mahatma Gandhi University**
- ❑ **Resource Person for Indian Academy of Sciences sponsored Refresher Course**
- ❑ **Reviewer of Journal of Alloys and Compounds**
- ❑ **Supervising guide for student projects, from neighbouring Colleges**
- ❑ **Question Paper setter for CUSAT and other Autonomous Colleges**
- ❑ **Placement Cell Coordinator**
- ❑ **Cricket Club, Table Tennis Club**



Dr. Poornima N

Dean of Research

Research interest: Photoluminescence

- Reviewer of Materials Research Express**
- Supervising guide for student projects, from neighbouring Colleges**
- Question Paper setter for CUSAT and other Autonomous Colleges**
- Member, Planning and Evaluation Committee**
- Member, Committee for Research and Consultancy**
- Criterion 5 Head, NAAC works**
- Music and Dance Club**



Dr. Priyesh K V

Dean of Academics

Research interest: Quantum Optics

- Supervising guide for student projects, from neighbouring Colleges**
- Question Paper setter for CUSAT and other Autonomous Colleges**
- Member, Planning and Evaluation Committee**
- Member, Purchase Committee**
- Member, Admission Committee**
- E Governance Committee**



Miss Mary Vijila C.V.

Research Interest: Perovskite materials for Optoelectronic Applications

- Assistant coordinator Office of Dean: Academics
- Assistant COE
- Medical Care Committee
- Member of the Governance Committee
- Nature Club



Mrs. Jixy Joseph

Research Interest: Superconductivity

- Assistant Coordinator, Office of Dean: International Affairs
- Attendance Monitoring Committee
- Counselling Club
- Drawing/Painting Club



Dr. Arun Babu K P

Research Interest: Space Weather

- ❑ **Member, HAWC and GRAPES collaboration**
- ❑ **Reviewer: Solar Physics, Springer Nature**
- ❑ **Junior member of International Astronomical Union**
- ❑ **Collaboration in HAWC and GRAPES-3 experiments**
- ❑ **Member, committee for Publications, Upcoming NAAC Visit**



Dr. Vijisha M.V.

Research Interest: Non-Linear Optics

- ❑ **Member, committee for Publications, Upcoming NAAC Visit**

PARTICIPATORY MANAGEMENT SYSTEM

In addition to the role of individual faculty members in supporting student well-being, administrators within students can work to coordinate these efforts. Such coordination can help faculty more easily support students. Administrators may also consider embedding conditions for well-being into various departmental activities to positively impact the well-being of both students and faculty.

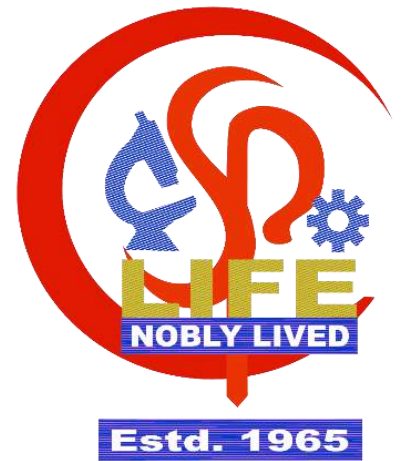
As part of participatory management system followed by the college, Department of Physics formed 12 committees and coordinators from various classes as well as faculty level coordinators were selected. The list of coordinators is given below.

Sl No	Role	Teacher coordinators	Student coordinators			
			PG	III UG	II UG	I UG
1	Secretary	Priyesh K V	Neethu	Arya, Agnel	Devika, Anand	Lijohn Lagi, Smechan S Shameem
2	DQAC	Poornima N	Kesiya	Ardra, Ashik	Josmy, Dominic	Fathima Kamarudheen, Kevin Varghese
3	Treasurer	Jixy Joseph	Pavitha	Lakshmi Swetha, Sajna	Haripriya, Joywin	Harishankar K A, Kavya Vijayan
4	Arts	Poornima N	Agatha	Devika, Jebin	Catherine, Anoop	Stanlin George, Britty Carherine P M
5	Sports	Rajeshmon V G	Navya	Mubeen, Amalkrishna	Melicia, Bharatkrishnan	Sakthivel T, Varsha K A
6	Examination	Mary Vijila C V	Athulya	Alfred, Paul	Adila, Albin	San Senoy, Binsiya U M

Sl No	Role	Teacher coordinators	Student coordinators			
			PG	III UG	II UG	I UG
7	Social Outreach	Jixy Joseph	Aparna V	Gopikrishnan, Fathima	Fathima, Rockey	Assin, Saniya Hussain
8	Placement-Career	Rajeshmon V G	Jannath	Nikhil Krishna, Varsha	Nura, Akshay	Adith Albert, Arya Asokan
9	IEDC/IIC	Jixy Joseph	Nighil	Fathah, Ashna	Felix, Sanjana	Akash N Anil, Jeffin Jose
10	e- Governance	Priyesh K V	Vishnu	Sinan, Anjana	Elrine, Albert	Sahil V R, Sanandh S
11	Media	Mary Vijila C V	Aparna P J	Dayana, Blessan	Reetha, Naivin	Devanunni, Aaron Varghese
12	Green	Mary Vijila C V	Karunya	Anirudhan, Arjun	Gowri, Amal Thomas	Emmanuel David, Robin Biju



DEPARTMENT
ACTIVITIES
2020-21



JUNE

2020

Observance of World Environment Day



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9 <i>World Environment Day Celebration</i>	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

ACTIVITIES OF THE DEPARTMENT

World environment day celebration

With the world fighting a pandemic together and most countries in lockdown, the environment seems to have benefited slightly. Nature seems to have been busy reclaiming its spaces.

With the World Environment Day 2020's theme being '*Celebrate Biodiversity*' Nature Club of St. Paul's College and Department of Physics jointly planted 70 plant saplings in the college campus as a part of the World Environment Day celebration in college, the Principal Prof. Valentine D'Cruz inaugurated the activity by planting saplings. All the faculties of the Department of Physics participated in the program. Programme helped to create awareness about importance of environment day among students.



JULY

2020

***Gender sensitization survey on the topic:
Women Friendly Workspace: Do you
belong there***



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24 <i>Women Friendly Workspace: Do you Belong there</i>	25
26	27	28	29	30	31	

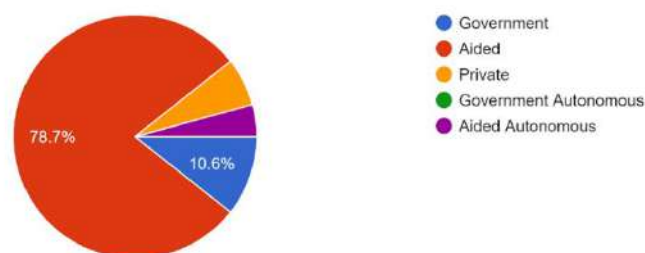
ACTIVITIES OF THE DEPARTMENT

Gender sensitization survey

Women Friendly Workspace: Do you belong there?

The survey was conducted as part of the gender sensitization initiative of the Department of Physics in collaboration with the IQAC of St. Paul's College. Gender sensitization is essential to understand the sensitive needs of a particular gender. Educational institutions are the best spaces for initiating such sensitization programmes because they instil thought. Many organizations have initiated baby steps towards making work spaces women- friendly by implementing stronger maternity leave policies, workplace safety etc. Such sensitization programmes are essential to identify and address conscious or unconscious biases that creep in to a workplace and the success of such programmes depend on the extent to which such topics are exposed for discussion and remediation. We received responses from lady teachers belonging to various age groups from Colleges as well as Schools. From the survey, we were able to understand some of the problems faced by teachers with regard to facilities/working environments in their institutions. Some were hesitant to even participate in the survey. Irrespective of the nature of the educational institution, the survey indicated that there weren't ample facilities like washrooms, sanitary napkin dispensers, incinerators etc in all toilet facilities. Many institutions didn't have a toilet in every staffroom. Apart from that many who participated in the survey felt that they are treated differently compared to their male counterparts. Some women found it difficult to avail eligible benefits and there isn't a counselling mechanism in place in most of the institutions for women.

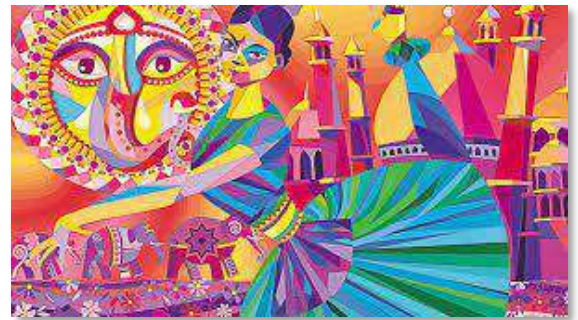
Type of institution
94 responses



AUGUST

2020

1. *ADIEU SENIORS, An Online Farewell*
2. *Intercollegiate Poster Designing Competition on “COVID-19 Awareness”*
3. *Energy Literacy Quiz*
4. *IT and Science graduates: opportunities and skills*
5. *Follow Your Passion*
6. *PLATFORM 9 ¾*
7. *The Power of Python - an introduction to python programming*



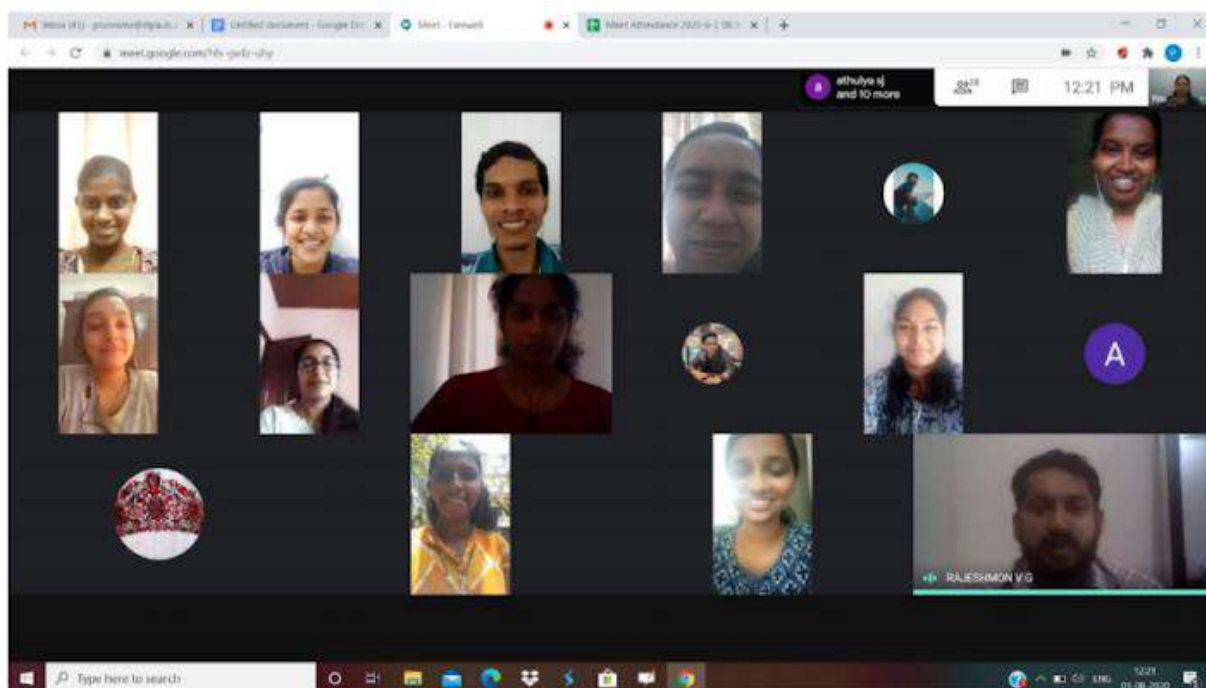
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 <i>ADIEU SENIORS</i>
2	3	4 <i>Poster Designing: COVID-19 Awareness</i>	5	6	7	8
9	10 <i>Energy Conservation Week</i>	11 <i>Energy Literacy Quiz</i>	12	13	14	15
16	17	18	19	20 <i>1. IT and Science graduates 2. Follow Your Passion</i>	21	22 <i>PLATFORM 9 ¾</i>
23 <i>PLATFORM 9 ¾</i>	24 <i>The Power of Python</i>	25	26	27	28	29
30	31					

ACTIVITIES OF THE DEPARTMENT

1. Adieu seniors – Online Farewell

A small online get together was organized to bid farewell to students of batch 2018-2020. A total of 29 participants joined the meeting. HOD of Physics department, Dr Rajeshmon V G. shared his memories with the students. All other teachers of the department also shared their memories. Some of the students and Dr. Poornima N sang during the session for lightening up the occasion. Most of the students of the batch shared their experiences and beautiful moments of their college life. A Virtual photograph session was also there.

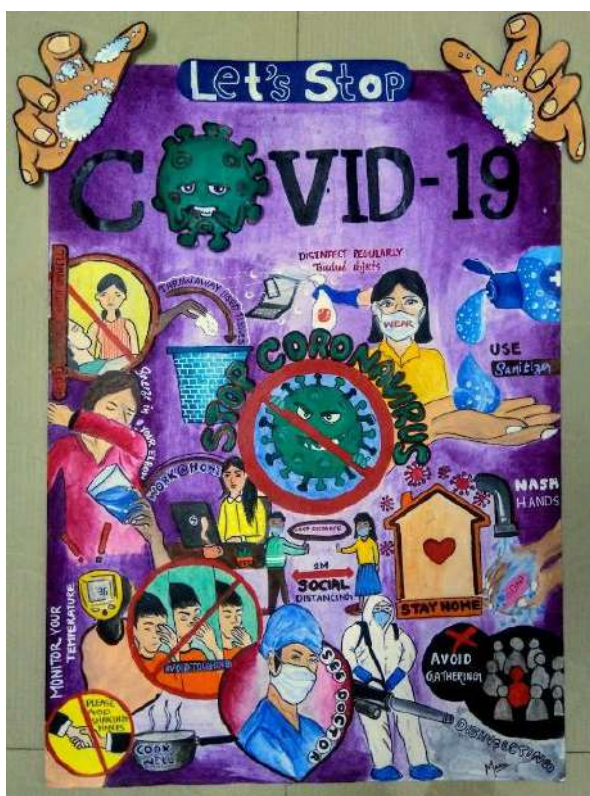
Even though not fully, this programme helped in mitigating the loss of the students of not being able to come to college a bit as the pass out batch.



2. Intercollegiate Poster Designing Competition on “COVID-19 Awareness”

Department of Physics in association with Painting/ Drawing Club organised an Intercollegiate Poster Designing Competition on the topic “Covid-19 Awareness”. The competition was held in between 04-08-2020 and 09-08-2020. Students from various institutions actively participated in the competition. Marwa Saji, SCMS College, bagged the 1st position. 2nd and 3rd positions were secured by Felix George and Dayana Vincent from St. Paul’s College, Kalamassery. E-Certificates were issued for all the participants.

Through this competition students were given an opportunity to bring out their artistic skills. This also helped in creating an awareness among students regarding the covid pandemic. This competition also gave refreshment to the young minds who were confined at home due to the lockdown.



1st Prize: Marwa Saji



2nd Prize: Felix George

3. Energy Conservation Week Celebration

Department of Physics celebrated “Energy Conservation Week” from 10/8/2020 to 16/8/2020. Highlighting the importance and necessity to conserve and preserve our energy resources and to inculcate the spirit of duties and responsibilities as a citizen, the students of 3rd B.Sc. Physics created a video which was released during the inaugural ceremony.

As part of the energy conservation week an online ‘Energy Literacy Quiz’ was held on 11/08/2020. Students from various colleges in Kerala actively participated in the quiz. We got around 1009 entries and E-Certificates were issued to all participants who scored more than 60%. On 12/08/2020, the entire faculty and students took pledge to conserve the fuel resources for future generation. An online session was conducted on 16/08/2020 to give training on LED bulb making. The Program was coordinated by Mrs. Jixy Joseph, Assistant Professor, Department of Physics.

Drastic measures with regard to sensible usage of existing resources as well as utilization of alternative energy resources is the need of the hour. Energy Conservation Week was a medium and an approach towards creating a mindset for preserving energy and resources for future generations.



ENERGY CONSERVATION WEEK CELEBRATION
2020 August 10-16

10-08-2020 : Amar Jyothi (Energy Conservation Pledge)
11-08-2020 : Energy Literacy Quiz
12-08-2020 : Energy Consumption Questionnaire
13-08-2020 : Online hands on training on LED bulb making

Organized by:
Research and Post Graduate Department of Physics
St. Paul's College, Kalamassery

Organizing Committee
Dr. Rajeshimon V.G.
(Head Of the Department)
Dr. Pooranima N.
Dr. Prayeshi K.V.
Ms. Mary Vijila C.V.

Faculty Co-ordinator
Mrs. Jixy Joseph

Student Co-ordinators
Ardra A.M.
Devika R. Nair
Anirudhan S.

**Save energy today ;
Survive tomorrow**



Certificate
Fuel Conservation Pledge

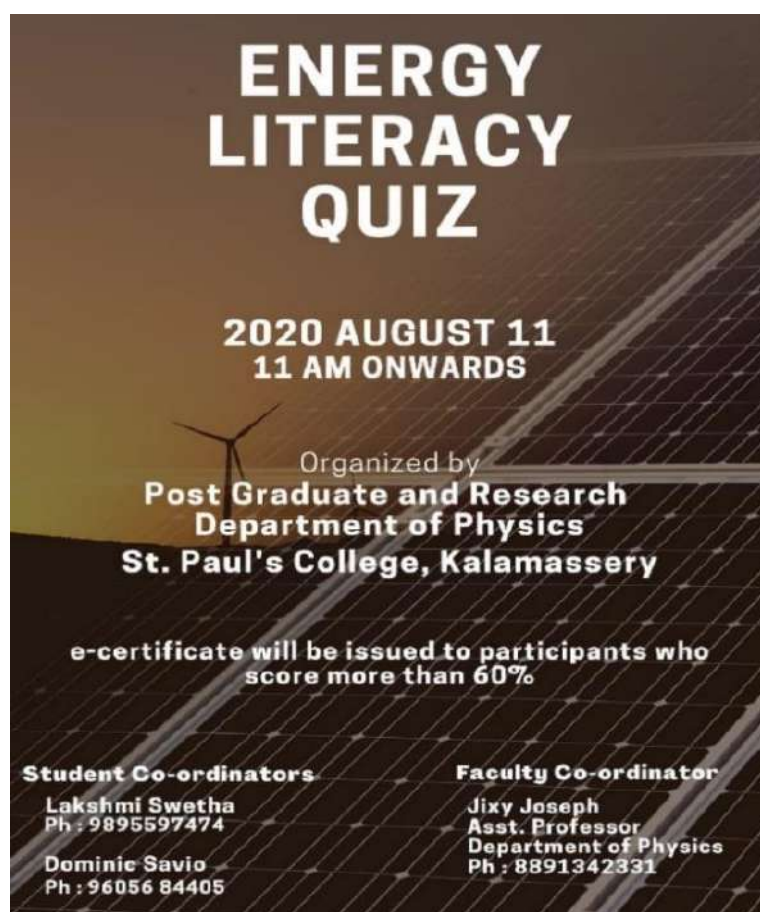
I do hereby solemnly pledge that I shall be continuously striving to conserve petroleum products in all spheres of our activities so that supplies of these scarce resources last longer for the progress of our country. I will shoulder the responsibility of a good citizen and endeavour to create awareness among the masses to avoid wasteful use of petroleum products, so as to build a new & healthy India for our future generations by ensuring a better environment.

2526436252
August, 16 2020

Provisional AI
Signature

4. Energy Literacy Quiz

As part of the energy conservation week, an online 'Energy Literacy Quiz' was held on 11/08/2020. The google form was open to the participants from 11.00 a.m to 10.00 p.m. There was an active participation of students from different colleges. We got 1009 entries and E-Certificates were provided to all participants who scored more than 60%. The Program was coordinated by Mrs. Jixy Joseph, Assistant Professor, Department of Physics. This quiz helped the students to test their knowledge and awareness on energy conservation.



5. IT and Science graduates: Opportunities and Skills

The IT Awareness Club & Placement cell of St. Paul's College, Kalamassery organized 'IT and Science graduates: Opportunities and Skills', a webinar on 20th August 2020. The webinar was conducted from 10 am-11.30 am through Google meet platform. The live session, which was led by Aadish Ajayakumar, was very useful for the students who wish to take up a career in the IT field. He explained about the various job opportunities in IT Sector and about building up an IT career after completion of the courses. Questions were asked by the students in the Q&A session, which the speaker answered in detail.

The webinar introduced the students to the vast job opportunities in the field of IT. It gave them a brief overview about the skill set required for jobs in the IT field. It also introduced them to various bridge courses to be completed after their degree programmes so as to fit themselves for the IT industry as well as various online courses and online platforms for enhancing their skill set.

Jointly Organised by
IT Awareness Club &
Placement Cell

20
AUGUST 2020
10.00AM

WEBINAR ON


**I.T. AND
SCIENCE GRADUATES:
OPPORTUNITIES AND
SKILLS**

Platform - Google Meet

For Registration
<https://elearning.stpauls.ac.in/webinars/415/>

SPEAKER:
PRASAD AADISH AJAYAKUMAR
TECHNICAL LEAD - TECH MAHINDRA LTD, BENGALURU

E certificates will be provided upon the submission of feedback form.

 **ST. Paul's College Kalamassery**
(Affiliated to Mahatma Gandhi University, Kottayam)
HMT Colony P.O., Emakulam- 682 503, Kerala-India

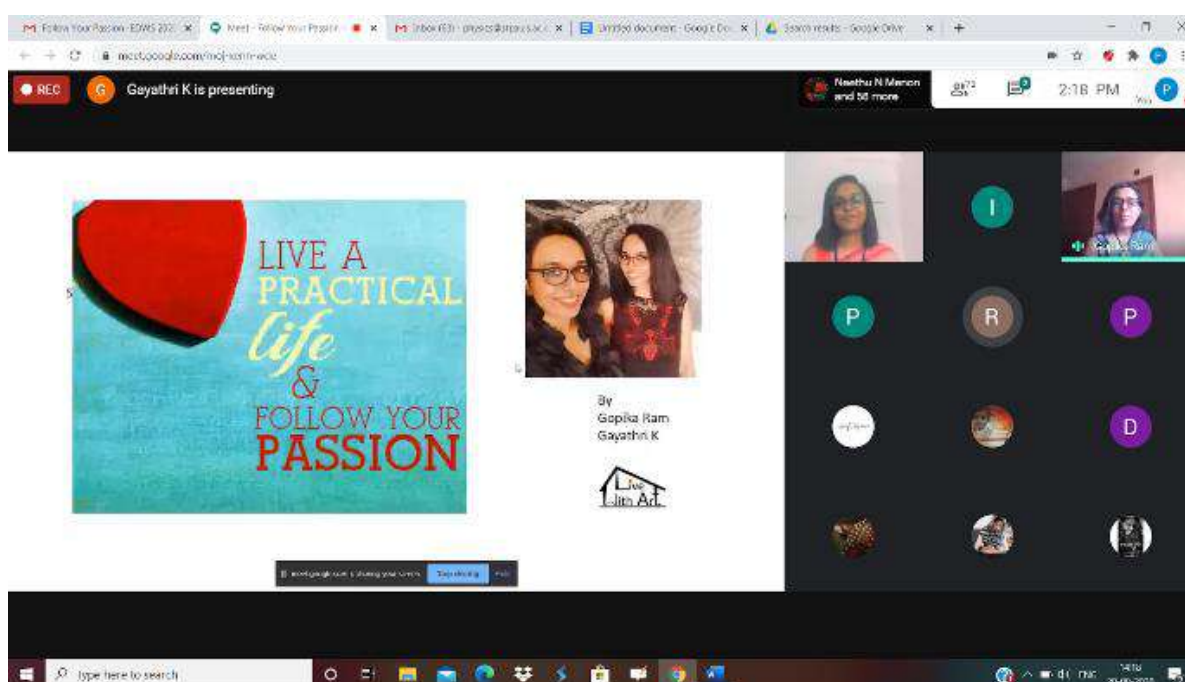
Contact:
Dr. Priyesh KV
Mob. 9447295667
Email. priyeshkv@stpauls.ac.in

6. Follow Your Passion

Department of Physics, St. Paul's College, Kalamassery in association with IEDC and IQAC organised a motivational talk - "Follow Your Passion" on 20th August 2020 via google meet platform. The programme was commenced by the welcome note by Dr. Rajeshmon V G, HoD, Department of Physics.

The two eminent speakers Gopika Ram & Gayathri Ram shared their inspiring life story about how they chased their passion and established their own start up, "Live with Art". They talked about their journey: of living their dream life in the field of painting and art while being academically excellent and also earning decent jobs. The programme ended with an interactive session where the speakers answered queries of students about following their passion and about remaining motivated to do the same. Students from various colleges actively participated in the program. Program coordinator Asst Prof. Jixy Joseph delivered the vote of thanks.

The programme was meant to motivate students to follow their passion and also to remind them that excelling academically is not the ultimate aim of life. The success story of the speakers was indeed a motivation for the students.



7. Platform 9 ¾- CANTIS

This programme was organized mainly for the mental well-being of the students who are facing a tough time during this pandemic. The intention was to channelize their unused energy to productive areas. Competitions were planned so that students could exhibit their proficiency in singing, recitation as well as instrumental music. The event CANTIS included competitions like Light Music, Classical Music, Western Music, Instrumental Music and Recitations in English, Malayalam and Hindi.

Outcome achieved: There were 23 registered participants in total for various events and out of them, the best performers were identified with the help of judges from within the College as well as external judges.

CANTIS
1. Light Music
2. Classical Music
3. Western Music
4. Instrumental Music Solo
5. Recitation (Eng/Mal/Hin)

Registration link for Cantis:
<https://forms.gle/6SSADTtEN2mWwVGD9>

REVELIO
1. Essay Writing (Eng/Mal/Hin)
2. Poem Writing (Eng/Mal/Hin)
3. Short Story (Eng/Mal/Hin)

Registration link for Revelio:
<https://forms.gle/SgNS2it22jEM4tEKA>

TALKING PORTRAITS
1. Pencil Drawing
2. Water Colouring
3. Oil Painting
4. Cartoon
5. Collage
6. Film Review
7. Photography

Registration link for Talking Portraits:
<https://forms.gle/416uK88mukc/gTXKA>

THE GOBLET OF FIRE

Winners of each event will be nominated to a lucky draw and cash prizes await selected 6 lucky contestants!

Platform 9 ¾
An Interdepartmental Arts – Fest organised by the Dept. of Physics, St. Paul's College, Kalamassery

Co-Ordinators:
Dr. Poornima N. Asst. Prof. Dept of Physics
Devika R Nair (Co-Ord.)
Jebin Peter (Co-Ord.)
Anoop P Bright (Co-Ord.)
Devika Manoj (Co-Ord.)
Agatha Cyriac (Co-Ord.)

WINNERS

SL NO	EVENT	NAME	CLASS	POSITION
1.	Light Music	Mary Geethu A R	II M.Sc. Maths	First
2	Light Music	Dona Earnestine	III B.A. Economics	Second
3	English Recitation	Neeraja K S	II B.VoC Banking	First
4	Malayalam Recitation	Mary Geethu A R	II M.Sc. Maths	First
5	Malayalam Recitation	Dona Earnestine	III B.A. Economics	Second
6	Western Music	Ajmal Rozariyo	III B.VoC Tourism	First
7	Western Music	Nivya George	III B.COM CA Aided	Second

8	Instrumental Music Solo	Yadukrishna S	III B.Sc Physics	First
9	Instrumental Music Solo	Agnel Antony	III B.Sc Physics	Second

Platform 9 ¾- REVELIO

The event REVELIO included writing events like essay writings, poem writings and short story writings in English, Malayalam and Hindi.

There were 67 registered participants in total for various events and out of them the best performers were identified with the help of judges from within the College as well as external judges.

WINNERS

SL NO	EVENT	NAME	CLASS	POSITION
1.	English Essay	Jyothilakshmi C R	III B.A. English Model II	First
2	English Essay	Souparnika M S	II B.Voc Banking	Second
3	Malayalam Essay	Josmy P T	II B.Sc. Physics	First
4	Malayalam Essay	Joywin Thadavious	II B.Sc. Physics	Second
5	Hindi Essay	Vyshnavi K T	II B.Sc. Maths	First
6	Hindi Essay	Devika Balakrishnan	III B.Sc. Maths	Second
7	English Poem	Jyothilakshmi C R	III B.A. English Model II	First
8	English Poem	Renu Poulose	III B.Com Tax	Second
9	Hindi Poem	Renu Poulose	III B.Com Tax	First
10	Hindi Poem	Devika Balakrishnan	III B.Sc. Maths	Second
11	Malayalam Poem	Ganga Madhukumar	III B.A. Economics	First
12	Malayalam Poem	Arun P U	II B.Voc Banking	Second
13	English Short Story	Abigail Ann Clements	III B.Com Tax	First
14	English Short Story	Neeraja K S	II B.Voc Banking	Second
15	Hindi Short Story	Renu Poulose	III B.Com Tax	First

16	Hindi Short Story	Souparnika M S	I B.Voc Banking	Second
17	Malayalam Short Story	Rehana M	II B.Sc. Maths	First
18	Malayalam Short Story	Joywin Thadavious	II B.Sc. Physics	Second
19	Malayalam Short Story	Aleesha Peter	II B.Com C A Aided	Second

Platform 9 ¾- TALKING PORTRAITS

The event TALKING PORTRAITS included competitions like pencil drawing, water colouring, oil painting, cartoon making, collage making, photography and film review.

There were 55 registered participants in total for various events and out of them the best performers were identified with the help of judges from within the College as well as external judges.

WINNERS

Sl No	Event	Name	Class	Position
1.	Pencil Drawing	Swarna Babu	III B.Sc. Maths	First
2	Pencil Drawing	Selma Joseph	III B.Sc. Maths	Second
3	Water Colour	Navya Basil	II M.A. Economics	First
4	Water Colour	Akhil Jose	III B.Com CA SF	Second
5	Cartoon	Dayana Vincent	III B.Sc. Physics	First
6	Cartoon	Arun A S	II M.A. Economics	Second
7	Collage	Aleesha Peter	II B.Com CA Aided	First
8	Photography	Arun Thomas	III B.Sc. Computer Science	First
9	Photography	Abhay Karthik D	II B.A.English Model 1	Second
10	Film Review	Gopikrishnan K B	III B.Sc. Physics	First
11	Film Review	Joywin Thadavious	II B.Sc. Physics	Second

8. The Power of Python - An introduction to Python Programming

The IT Awareness Club & Department of Physics of St. Paul's College, Kalamassery jointly organized a webinar on 'The Power of Python - An introduction to Python Programming' on 24th August 2020. The webinar was conducted from 10 am-11.30 am, through Google meet application. The live session, which was led by Muhammed Anees V., Technical lead, 'Computer Vision' was about the programming language Python. He demonstrated some basic programmes and the students were able to gain a basic knowledge about the topic. The students raised some question in the 'Question-Answer' session to which the speaker responded in detail.

Python is an advanced programming language used globally in most of the science researches, industries and information technology companies. The session intended to introduce python language to the students. Fundamental syntaxes and format of the programme was explained along with a few hands-on examples to familiarise the students to the python language. Many online books and platforms for learning python along with the degree programme was also introduced.


DEPARTMENT OF PHYSICS
& IT AWARENESS CLUB
jointly organize

WEBINAR
THE POWER OF PYTHON
AN INTRODUCTION TO PYTHON PROGRAMMING
PLATFORM: GOOGLE MEET

24 AUG. 2020 10.00 AM

ANEES MOHAMMED
Tech Lead - Computer Vision
Gadgeon Smart Systems, Kochi

Registration Link: <https://elearning.stpauls.ac.in/webinars/power-of-python/>
Contact: Dr. Priyesh K. V., priyeshkv@stpauls.ac.in, 9447295667

 **ST. PAUL'S COLLEGE**
Kalamassery
HMT Colony PO, Ernakulam 683503
www.stpauls.ac.in

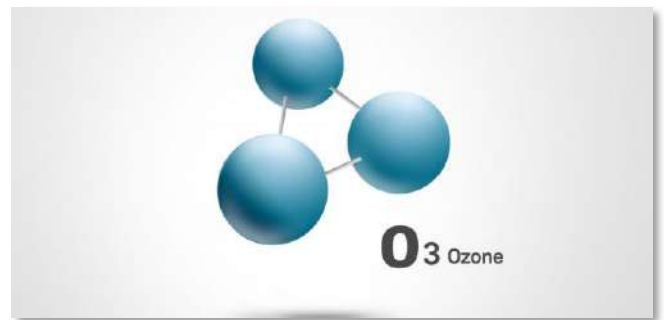
SEPTEMBER

2020

1. Career Opportunities in

High Energy Physics

2. World Ozone Day Celebration



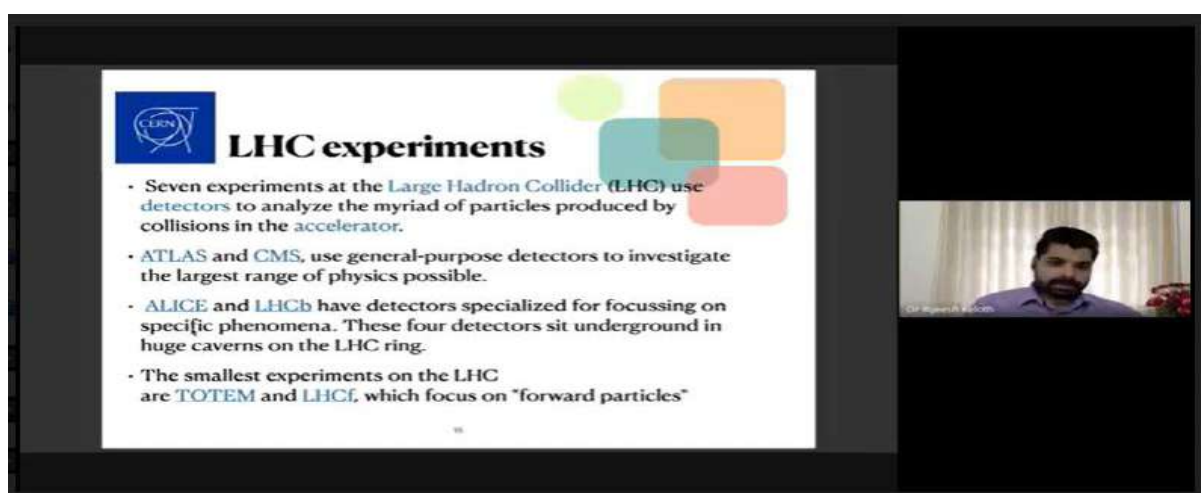
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11 <i>Career Opportunities in High Energy Physics</i>	12
13	14	15	16	17	18 <i>World Ozone Day Celebration</i>	19
20	21	22	23	24	25	26
27	28	29	30			

ACTIVITIES OF THE DEPARTMENT

1. Career Opportunities in High Energy Physics

As a continuation to the “Meet the Scientist” Programme which is being organized every year, the Department of Physics organized ‘Career Opportunities in High Energy Physics’ on 11th September 2020 via Google meet platform from 11 am - 12 pm. Dr. Rijeesh Keloth, Post-Doctoral Fellow, Department of Physics, VUB, Belgium, served as the resource person. In the session Dr. Rijeesh gave an insight into the latest research and discoveries in the field of particle physics. He even gave a detailed explanation to the various doubts that the students raised at the end of the session.

The session was very informative and the students got an awareness about the current theoretical research areas and got motivated to pursue study in the field of pure Physics.



The image shows a screenshot of a presentation slide titled "LHC experiments" with the CERN logo. The slide lists four bullet points about LHC experiments. To the right of the slide is a small video feed showing a man, Dr. Rijeesh Keloth, speaking.

LHC experiments

- Seven experiments at the Large Hadron Collider (LHC) use detectors to analyze the myriad of particles produced by collisions in the accelerator.
- ATLAS and CMS, use general-purpose detectors to investigate the largest range of physics possible.
- ALICE and LHCb have detectors specialized for focussing on specific phenomena. These four detectors sit underground in huge caverns on the LHC ring.
- The smallest experiments on the LHC are TOTEM and LHCf, which focus on "forward particles"

2. World Ozone Day Celebration- Webinar

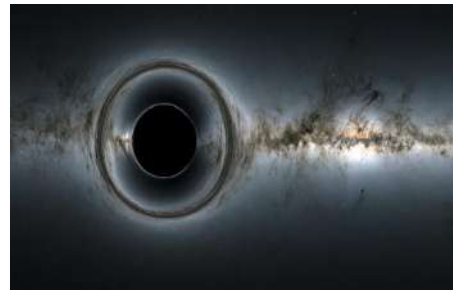
The Nature club and department of Physics conducted a talk based on the theme “Ozone for life: 35 years of Ozone layer protection as a part of Ozone day celebrations 2020. Head of the Physics department, Dr. Rajeshmon V G welcomed the gathering. Talk was delivered by Dr. K. Satheesan, Associate Professor, Dept. of Atmospheric Sciences, CUSAT. About 160 participants including students and teachers of various departments participated in the program. Coordinator of the program, Ms. Mary Vijila C V delivered a vote of thanks.

The screenshot shows a Google Meet interface during a webinar. The main content is a presentation slide titled "Review: Why stratospheric ozone is 'Good':". The slide features two graphs showing absorption spectra. The top graph plots Absorption (0% to 100%) against Wavelength (μm) from 1 to 10, with regions for Ultraviolet, Visible, and Infrared. It notes that black areas represent radiation absorbed. The bottom graph plots Absorption against Wavelength (μm) from 0.1 to 30, highlighting a sharp peak at approximately 0.3 μm. A text box on the right states: "Ozone has the property of being a very strong absorber of ultraviolet radiation → nearly total absorption of wavelengths less than 0.3 μm". The Meet interface includes a "REC" button, the presenter's name "Satheesan K is", a chat icon, a time display of "11:16 AM", and a list of participants: POORNIMA N, Satheesan K, and CCA 180946. The system tray at the bottom shows the date and time as "11:18 18.9.2020".

NOVEMBER

2020

Black hole: The Nobel Winner



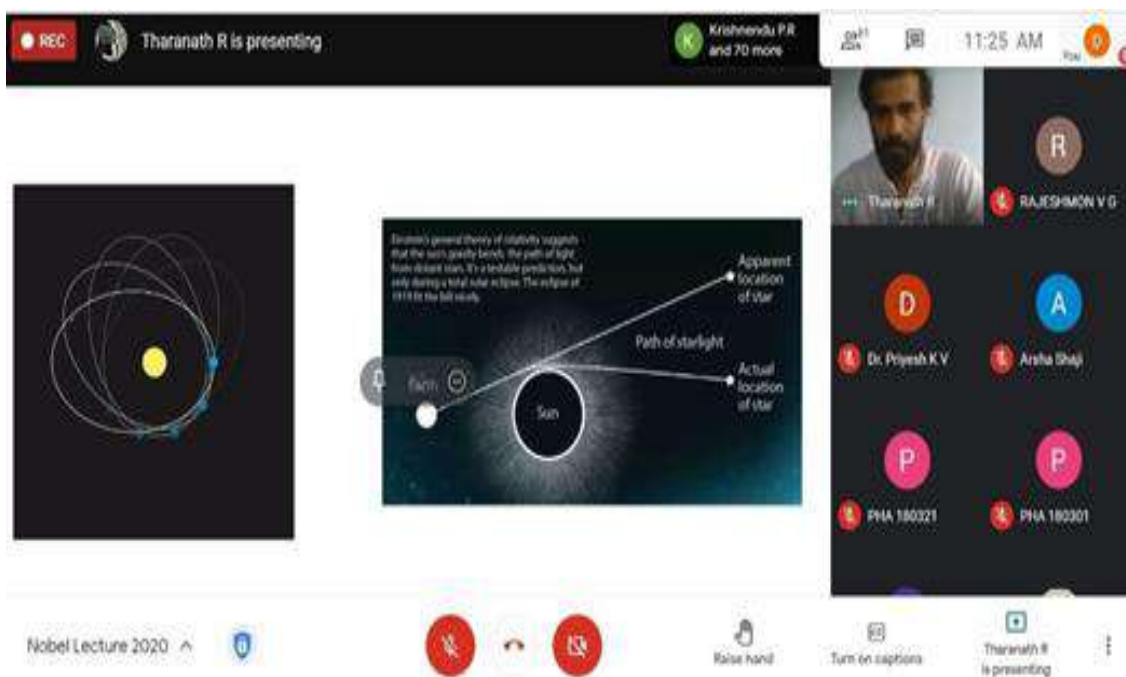
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27 <i>Black hole: The Nobel Winner</i>	28
29	30					

ACTIVITIES OF THE DEPARTMENT

Black hole: The Nobel Winner

As a continuation to the Nobel lecture series which is being organized every year, the Department of Physics organized 'Nobel Lecture 2020' on 27th November 2020 via Google meet platform from 11 am - 12 pm. The lecture was on the Nobel winning topic "Blackhole". Dr. Tharanath R., Asst. Professor, Aquinas College, Edakochi, served as resource person. The session ranged from "what is a blackhole" to the latest research and discoveries in the field. He explained the Nobel winning research ideas by Roger Penrose and explained the mathematical formulation of the topic. Students asked their doubts at the end of the session to which the speaker answered in detail.

The session was undoubtedly informative and useful to all the students. Students got an insight of current research areas and got motivated to pursue study in the field of pure Physics.



DECEMBER

2020

Signature Talks



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7 <i>Signature Talks</i>	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Signature talks

Signature Talks is a confluence of the past, present and future of the Department of Physics, St. Paul's College, Kalamassery. This is an orientation session for the newcomers, a career guidance programme for the present final years and an alumni meeting as well. The speakers of Signature Talks are alumni members who are in diverse areas of expertise.

The first talk in the series was handled by GC Jairam Kaladharan, who joined the Indian army in 2020 and he is an alumnus of 2015-18 batch of our college. The programme received a huge positive response from the students and they were highly motivated by the real-life experiences shared by the speaker. Students got an idea about the exams and interview one has to clear to be selected into the Indian Army. The session was open to alumni of the 2015-18 batch and the present students could interact with them too.


LET'S JOIN HANDS TO EDUCATE..

Signature Talks is a confluence of the past, present and future of the Department of Physics, St. Paul's College, Kalamassery. This is homecoming for our alumni and an opportunity for the present generation to listen to the success stories of those who have already travelled long distances.
We are proud to have our alumni members as mentors to our students!

WELCOME BACK..


SIGNATURE TALKS

ORGANIZED BY



THE DEPARTMENT OF PHYSICS
ST. PAUL'S COLLEGE, KALAMASSERY

Speaker



GC Jairam Kaladharan
Alumnus of B.Sc.
2015-18 batch

07-12-2020
9.00 a.m.-10.30 a.m.
Platform: Google Meet

FEBRUARY

2021

1. *International Day for Women*
2. *Career Opportunities in Astro-particle Physics*
3. *National Science Day Celebration*

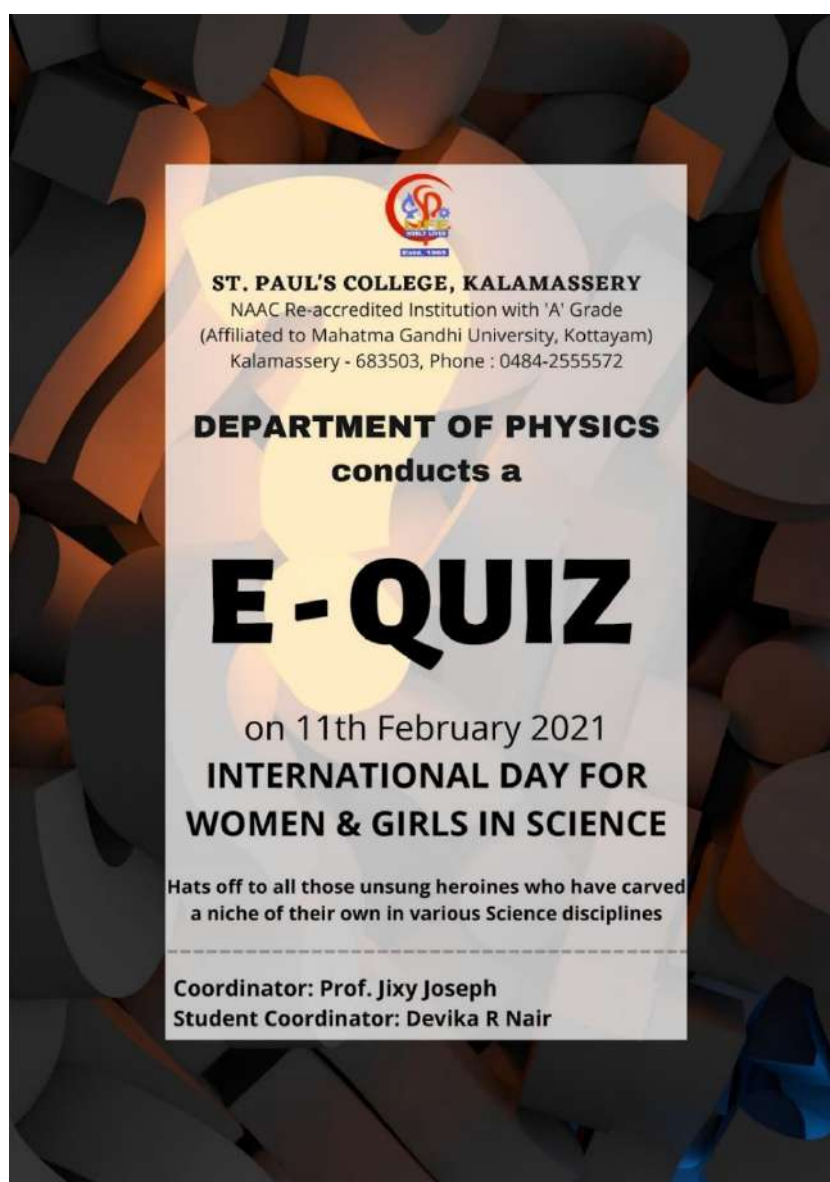


Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11 <i>International Day for Women</i>	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26 <i>National Science Day</i>	27 <i>International Webinar</i>
28						

1. International Day for women and girls in Science E-Quiz

The United Nations has declared February 11, as International Day for Women and Girls in Science. This quiz is an initiative by the Department of Physics, St. Paul's College Kalamassery, to acknowledge contributions made by Women to Science. Hats off to all those unsung heroines who have carved a niche of their own in various Science disciplines. Total 152 students participated.

Women and girls play a critical role in science and technology communities and by conducting these programs we reaffirmed their participation in achieving sustainable development which relies on innovation within the STEM field.



2. International Webinar - Career Opportunities in Astroparticle Physics

The Office of the Dean of International Affairs in association with the Department of Physics, St Paul's College, Kalamassery organised an International webinar on "Career Opportunities in Astroparticle Physics". The programme was conducted on 27th February through the Google Meet platform. The session was handled by Dr Arun Babu K P, HWAC collaboration, associated with Instituto de Geofisica, UNAM, Mexico City. 75 students attended the programme and got the opportunity to interact with the speaker. The session was highly informative, students got a vivid idea about the various career options they can pursue after B.Sc. Physics in the field of astroparticle physics. He explained in detail about the HAWC collaboration and discussed the various ongoing experiments. Students got the opportunity to know more about the Parker Solar Probe Mission and also about the upcoming projects like HAGAR, MACE and many more. The speaker also answered the queries of students and it benefited them greatly.

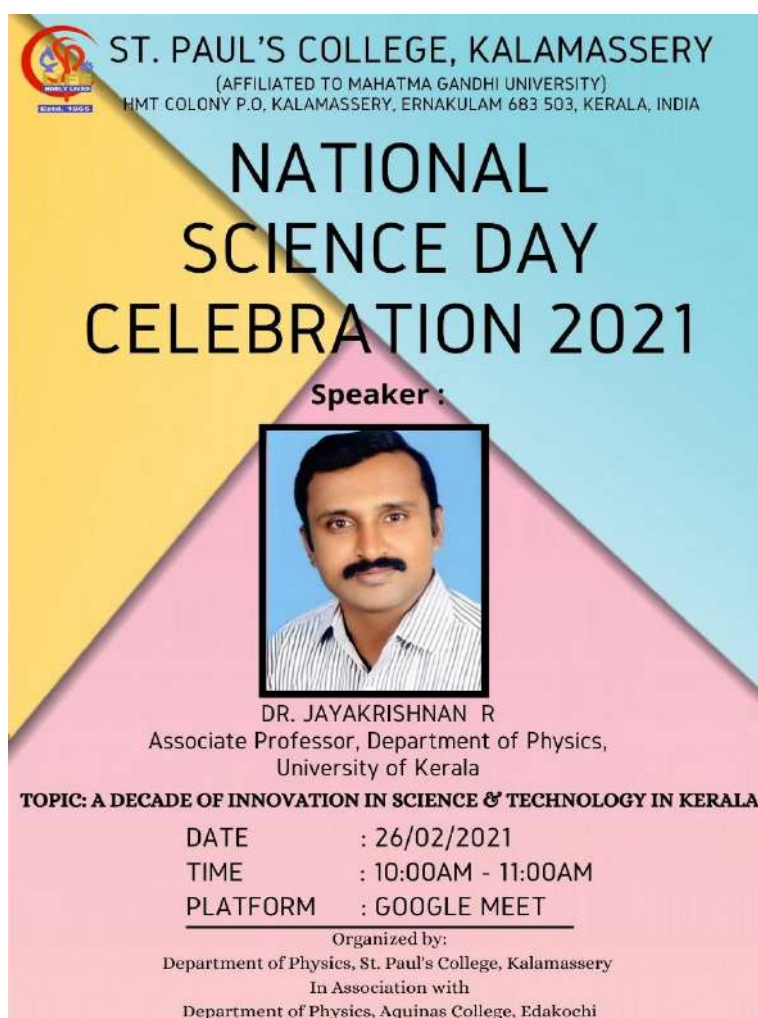
The screenshot shows a Google Meet interface during a webinar. The main content area displays a slide titled "Space Experiment" with three images of satellites in space. The text on the slide describes the PAMELA mission:

PAMELA (Payload for Antimatter Matter Exploration and Light-nuclei Astrophysics) dedicated to the detection of cosmic rays, with a particular focus on their antimatter component, in the form of positrons and antiprotons. Other objectives included long-term monitoring of the solar modulation of cosmic rays, measurements of energetic particles from the Sun, high-energy particles in Earth's magnetosphere and Jovian electrons.

The interface also shows a list of participants on the right, including Arun Babu Kollamparambil, LINTA PREMKUMAR, Saha Rex, Akhila Chandran, and several other participants with IDs like PHA 180323, PHA 190314, PHA 180319, PHA 180304, and PHA 190309. The bottom of the screen shows the meeting controls, including "Raise hand", "Turn on captions", and "Arun Babu Kollamparambil is presenting".

3. National Science Day celebrations


The National Science Day celebrations organized by the Department of Physics, St. Paul's College Kalamassery in association with Department of Physics, Aquinas College, Edakochi, kickstarted with a talk by Dr. R. Jayakrishnan, Associate Professor, Department of physics, University of Kerala. Dr. Jayakrishnan spoke on A decade on Innovation in Science and Technology in Kerala. The programme was attended by 133 participants and was quite an informative one for the audience.



ST. PAUL'S COLLEGE, KALAMASSERY
(AFFILIATED TO MAHATMA GANDHI UNIVERSITY)
HMT COLONY P.O, KALAMASSERY, ERNAKULAM 683 503, KERALA, INDIA

**NATIONAL
SCIENCE DAY
CELEBRATION 2021**

Speaker :



DR. JAYAKRISHNAN R
Associate Professor, Department of Physics,
University of Kerala

TOPIC: A DECADE OF INNOVATION IN SCIENCE & TECHNOLOGY IN KERALA

DATE : 26/02/2021
TIME : 10:00AM - 11:00AM
PLATFORM : GOOGLE MEET

Organized by:
Department of Physics, St. Paul's College, Kalamassery
In Association with
Department of Physics, Aquinas College, Edakochi

MARCH

2021

1. *Fight the Fear Campaign*
2. *National Science Day Celebration*



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 <i>National Science Day</i>	2	3	4	5	6
7	8	9 <i>Fight the Fear Campaign</i>	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

1. Fight the Fear Campaign

As part of the Women's Day Celebrations, Department of Physics, St. Paul's College, Kalamassery in association with the Women Empowerment Cell organised 'Fight the Fear Campaign'. The programme was conducted on 9th March 2021 in the Seminar Hall. Students got the golden opportunity to study self defense moves under the guidance of Renshi Suma S, Chief Coach, Hind Shito Ryu Karate, Kakkanad. 80 girls of the college actively participated in the programme.

Self defense classes boost our confidence and prepares us to face situations that may bring harm to us. In the present scenario where women face various kinds of threats from the society, it has become the need of the hour to guide them with proper self defense skills. Through this programme students got an opportunity for the same and they have become more confident to deal with such situations.



2. National Science Day Celebrations

The second talk in the National Science Day Celebrations jointly organized by the Department of Physics, St. Paul's College, Kalamassery and Department of Physics, Aquinas College, Edakochi was given by Dr. Nayana A J, Research Associate in the United Arab Emirates University. The talk was attended by 130 participants and was quite a fascinating one on "The Cow in the Sky". The speaker gave an idea as to what ATS Cow really was and how data was collected and processed in to useful information. The talk was highly motivating for all the participants.

AQUINAS COLLEGE, EDACOCHIN
(AFFILIATED TO MAHATMA GANDHI UNIVERSITY)

**NATIONAL SCIENCE DAY
CELEBRATION 2021**

WEBINAR
Speaker




Nayana A.J

(PhD In Astrophysics at National centre for Radio Astrophysics, Tata Institute of Fundamental Research, Pune. Worked as Research Associate in the Department of Physics, United Arab Emirates University, UAE)

Topic **The "Cow" in the Sky**

On **01-03-2021** at **10:00 am**

platform  **Google Meet**

Organized by
Department of Physics, **AQUINAS** College, Edacochin
In association with
Department of Physics, St. Paul's College, Kalamessery

MOMENTS OF PRIDE..



Aleena Joseph

M.Sc. 2018-20 batch

**secured 6th position in MG
University exams**



**BEST OUTGOING STUDENT
PAULINE STAR 2021- DEVIKA R NAIR (III B.Sc. PHYSICS)**

This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository, <https://nptel.ac.in/noc/>

Roll No: NPTEL20PH18571420185

To
DR RAJESHMON V G
ASSISTANT PROFESSOR
DEPARTMENT OF PHYSICS, ST. PAULS COLLEGE
KALAMASSERY
KERALA - 683503
PH. NO :9447719801



Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL:3

An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.



TOPPER

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to
DR RAJESHMON V G
for successfully completing the course

Theoretical Mechanics

with a consolidated score of **82** %

Online Assignments	22.09/25	Proctored Exam	60/75
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Total number of candidates certified in this course: 19

Sep-Dec 2020
(12 week course)


Prof. Hemant B Kaushik
Head, Centre for Educational Technology
& NPTEL Coordinator
IIT Guwahati



Indian Institute of Technology Guwahati



Roll No: NPTEL20PH18571420185

To validate and check scores: <https://nptel.ac.in/noc/>

Dr. Rajeshmon V G, was acknowledged as Topper at National Level, with a consolidated score of 82 %, in the NPTEL Course on Theoretical Mechanics

Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less.

-Marie Curie