Annual Report

Physics Association (Beats)

Year: 2023-24

A Quality Assurance Venture of the IQAC

Baselius College, Kottayam

Certificate

This is to certify that the following is a bonafide record of activities and achievements of Physics Association for the academic year 2023-24. Necessary supporting documents have been attached wherever possible.

Teacher-in-charge

Verified

IQAC Co-ordinator.

Counter-Signed by

PRINCIPAL

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Part - A

1.1 Name of the Club : Physics Association (Beats)

e-mail address : <u>beats.physics@gmail.com</u>

Social media details

Name of the teacher in charge : Dr. Anisha Mary Mathew

Name of the Club Secretary : Graceson P Rajan & Gouri G Mohan

Contact Nos.

Teacher-in-charge : 9447304071

Secretary :

1.2 **Executive Committee Details**

S1 No	Name of the member	Designation/ Class/ Position
1.	Dr. Linju Ann Jacob	H.O.D, Department of Physics
2.	Dr. Anisha Mary Mathew	Teacher in Charge
3.	Graceson P Rajan	Association Secretary
		D3 Physics
4.	Gouri G Mohan	Association Joint Secretary
		D3 Physics
5.	Saranya Joy	M2 Representative,
6.	Jaison Sabu	M2 Representative
7.	Daya	M1 Representative
8.	Aparna Thilakan	M1 Representative
9.	Abhiya Elsa Joshy	D2 representative

10.	Nidarsh S	D2 representative	
11.	Uthara Vinu	D1 representative	
12.	Arun Hari	D1 representative	

No. of committee meetings held

Sl No	Date of the Meeting	No of participants
1		
2		

(Soft copy of minutes signed by Secretary, Teacher in charge to be submitted)

1.3 Plan of Action

Plan of Action	Proposed Date/ Month	Status of attainment at the year end
Environmental Day celebration- Energy Auditing	5/6/2023	Conducted on 5/6/2023
2. Hands on training in scientific computing using Microsoft Excel	June 2023	Conducted on 12/6/2023
3. Value added course- Mathematical foundation for Physics	June 2023	Conducted on 24/6/2023
4. Conducted a live telecasting of Chandrayan-3 Launching at AP Mani Media Centre		Conducted on 14/7/2023
5. Celebrated International Moon Day	25/7/2023	Conducted on 25/7/2023

6. A day with the kids at Govt. UP school, Muttambalam- An extension Program	August	Conducted on 04/08/2023
		Conducted on 10/08/2023
8. Association Inaugurat And A talk on investigation of crime scientific approach		Conducted on 21/8/2023
9. Conducted a live telecasting of Chandra-3 soft landing at AP Mani Media Centre	iyan	Conducted on 23/8/2023
10. Department level 0. Celebrations	nam August	Conducted on 24/8/2023
11. 16 th All Kerala Prof. Su John Memorial Phy Quiz Competition and All Kerala Prof. V J memorial Power P Presentation Competi	vsics d 6 th dohn doint	Conducted on 21/09/2023
12. Organised two-day national workshop on ExpEyes – Building yo Personal science lab		Conducted on 03/11/2023 to 04/11/23
13. An awareness progra conducted in associa with National enc conservation day December14, 2023 Poster Presentation	tion 14/12/2023	Conducted on 14/12 2023

 Circulating a write up to all departments showing energy saving tips. Taking the national energy conservation pledge. 		
14. Organised a two-day workshop on "Shine on – LED creations unveiled" on December 14 and 15 2023.	December	Conducted on 14/12/2023 and 15/12/2023
15. Participated in Joy fiesta Baselian Expo - displayed and sale our exhibits.		
16. Seminar on career opportunities in healthcare sector by TRANSORZE Solutions in collaboration with NSDC.		Conduced on January
17. PG students for lab visit at SPAP, MGU on 20/2/2024	February	Conducted on 20/2/2024
18. Valedictory and Farewell to Final Year students	March	Conducted on 16/03/2024

Part - B

Part B – 2.1 Talks/Lectures/ Workshops Conducted- 9
2.2a Competitions Organised within the College - Nil
2.2h Inter Collegists Commetitions Organised 2
2.2b- Inter-Collegiate Competitions Organised -2
2.3- Cultural Programmes Organised -1
2.4 – Extension and Outreach Programme Organised -1
2.5- Skill Development Courses Organised- 1
2.6- Certificate Programme/ Diploma Organised
2.7 Student Participation and Achievements outside
2.8- Any Other activity/point worth mentioning

2.1 Talks/Lectures/ Workshops Organised/ Conducted

Summary:

Sl No	Title of the Programme	Name of the Resource Person	No. of participants	Links available if any
1.	Environmental Day celebration- Energy auditing	Dr. Nibu A George	Teachers and students of the department	
2.	Hands on training in scientific computing using Microsoft Excel	Dr. Nibu A George	10 Teachers and Research Scholars	
3.	Conducted a live telecasting of Chandrayan -3 Launching at AP Mani Media Centre	Dr. Sindu Jones	Teachers and students of the college	
4.	Celebrated International Moon day	Dr. Sindu Jones	26	
5.	Hiroshima and Nagasaki Day	Dr. Sindu Jones	43	

	Observance- Oath Taking and Crafting Sadako Sasaki's Paper Cranes			
6.	Association Inauguration and A talk on investigation of crimes- a scientific approach	Dr. Jayachandran K, Assistant Professor at Government Polytechnic Cherthala.	All students and teachers of physics department	
7.	Organised two day national workshop on Expeyes – Building your Personal science lab	Dr. Ajith Kumar B P, Rtd. Scientist-H, IUAC, New Delhi & Dr K K Abdulla, Former HOD of Physics, Farook College, Kozhikode		
8.	National Energy Conservation Day – Celebrations An awareness program is conducted in association with National energy conservation day on December14, 2023 Poster Presentation Circulating a write up to all departments showing energy saving tips. Taking the national energy conservation pledge.		All students and teachers of physics department	
9.	Organised a two day workshop on "Shine on – LED creations unveiled" on December 14 and 15 2023.	Dr. Boni Samuel, Assistant Professor of Electronics, Nirmala College, Muvattupuzha	30	

10.	Seminar on career opportunities in healthcare sector by TRANSORZE Solutions in collaboration with NSDC.	Resource persons from TRANSORZE Solutions	12	
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Summary of Reports of each Activity

1. Environmental Day celebration- Energy auditing

The Physics Association activities started its long triumphant journey on June 5th 2023 with the "Environmental Day celebration". As a part of environmental day celebration, an awareness program about energy auditing of the individual houses were conducted for Physics students. Nearly 40 students participated in the program. Dr. Nibu A George, Assistant Professor, Department physics was the resource person. The class was very effective and all the students actively participated in the program. He demonstrates the need of house energy auditing and how to reduce the current bill effectively.

Department of Physics and Research Centre Baselius College, Kottavam NAAC Resecredited with A++ Grade (CGPA 3.11) World Environment Day **Energy Auditing** To understand the power consumption and its effective management at individual houses Resource Person: 5 June 2023 @ 2.30 pm Dr. Nibu A George Physics Seminar Hall Dr. Anisha Mary Mathew Dr. Biju Thomas Dr. Simla Jones Principal

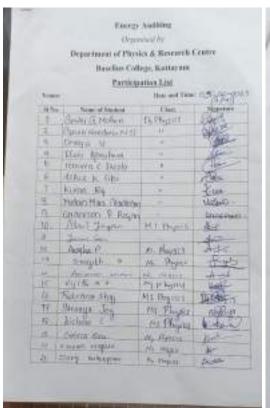
Then a simple Walk-Through audit

(observation of the energy consumption of electrical appliances) was conducted by students in their own houses. All the students calculated the average power consumed in their houses for one month and analyzed their energy usage and discussed about what can be done to reduce energy consumption.

Our pass-out Final Year PG Students Krishnendu and Jaison did a presentation for the students about the importance of the day.





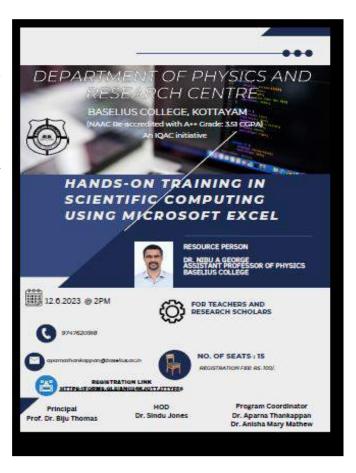




2. Hands on training in scientific computing using Microsoft Excel

The department of Physics and research centre conducted a hands-on training in scientific computing using Microsoft excel on 12/06/2023 at 2 pm. The Head of the department of Physics, Dr. Sindu Jones welcomed the gathering. Dr. Nibu A George, Faculty of our department delivered the class. About 10 members including teachers and research scholars participated in the program.

- 1. Dr Sindu Jones
- 2. Dr. Anisha Mary Mathew
- 3. Dr. Misha Hari
- 4. Dr. Ambika D
- 5. Dr. Aparna Thankappan
- 6. Ms. Neha P R
- 7. Mr. Nibu B Thomas
- 8. Dr. Krishnaraj M V
- 9. Dr. Aarabhi P
- 10. Lakshmi



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3. Conducted a live telecasting of Chandrayan -3 Launching at AP Mani Media Centre

physics Association of the Postgraduate Department of Physics and Centre for Research of Baselius College, Kottayam conducted a live telecating of Chandrayan-3 (the lunar mission of India) Launching at AP Mani Media Centre on 14/07/2023. A brief history and and the scientific reasons behind the successful moon mission is explained by Dr. Sindu Jones. Daya Sara of M1 Physics, Uthara Vinu of D1 Physics and Sona of M2 Physics explained about the milestones of Indian Lunar missions. Teachers and students from Physics department as well as from other departments were participated in the live telecast programme. It was a better experience for the students to witness the telecast and association secretary remarked the vote of thanks for the program.



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4. International Moon day Celebrations



Every year July 20 is observed as International Moon Day. The day celebrates the first landing by humans on the Moon as part of the Apollo 11 lunar mission.

Physics Association celebrated the international moon day on 25/07/2023, 2 pm at AP Mani media centre. Different activities for exploring lunar missions were conducted. First Year Degree students presented a skit regarding moon missions. First Year students PG students conducted a Quiz competition related to moon and Final year PG students did PowerPoint presentation which help students to dive into the fascinating world of lunar science. All over the program is a good and thrilling experience for students and they enjoy it very well. Events like these not only commemorate the historic Apollo 11 landing but also inspire curiosity and interest in lunar science among students. It seems like it was both educational and enjoyable for everyone involved.

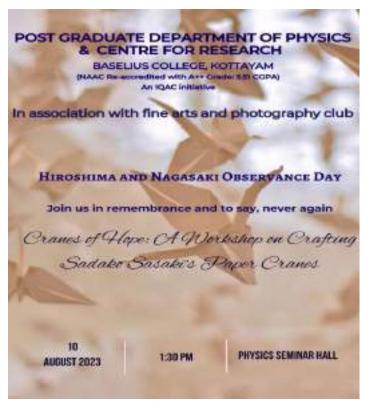




List of Participants



5. Hiroshima and Nagasaki Day Observance- Oath Taking and Crafting Sadako Sasaki's Paper Cranes



The Physics Association organized an observance of Hiroshima and Nagasaki Day on 10/08/2023. The event aimed to commemorate the tragic events of World War II and promote a message of peace and remembrance.

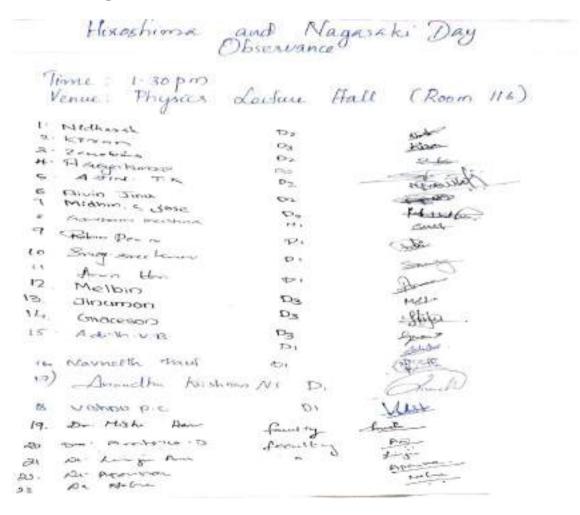
The program commenced with an oath-taking ceremony, where all the students and teachers pledged to uphold the values of peace and to work towards preventing similar tragedies in the future. Following the oath-taking, participants engaged in the crafting of paper cranes, inspired by the story of

Sadako Sasaki. Sadako, a survivor of the Hiroshima bombing, famously folded paper cranes as a symbol of hope and peace. The act of crafting these cranes was a touching gesture, symbolizing the desire for healing and reconciliation in the wake of conflict. These activities provided a platform for dialogue and remembrance, fostering a deeper understanding of the impact of war and the importance of promoting peace.









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43 Uthara Minu.

6. Association Inauguration and A talk on investigation of crimes- a scientific approach

The **Physics** Association commenced its activities with an inaugural ceremony featuring an enlightening talk "Investigation of Crimes - A Approach" Scientific by Jayachandran K. Assistant Professor Government at Polytechnic Cherthala.

Beats 2023-24, the association of Postgraduate Department of Physics and centre for Research, Baselius College Kottayam has organised Association Inauguration Ceremony on 21st August 2023. The programme started at 10.30 am with prayer by Devaja V. The association incharge Dr. Anisha Mary Mathew



welcomed everyone to the occasion. Dr. Sindu Jones, HOD commenced the proceedings with a gracious Presidential Address, marking the significance of the occasion. She expressed the vision of the Physics Association and underscored the importance of fostering a spirit of inquiry and scientific exploration among students. The guest of honour for the function Dr. Jayachandran K lighted the traditional lamp. Dr Sindu Jones, Dr Anisha Mary Mathew and student representative Gowri Nandana lighted the lamp.

Following the Presidential Address, Dr. Jayachandran K took the stage to deliver his enlightening talk on "Investigation of Crimes - A Scientific Approach." He highlighted various scientific techniques and methodologies used in forensic analysis, ranging from fingerprinting and DNA profiling to ballistics and toxicology. He emphasized the importance of employing a systematic and evidence-based approach to crime scene

investigation, showcasing the critical role that physics and other scientific disciplines play in the pursuit of justice.

After the talk fresher's day – welcome to first year students, is arranged in the afternoon and the program come to an end by 3.30 pm.







List of Participants

All students in Physics department

7. Organised two-day national workshop on Exp-Eyes – Building your Personal science lab.

Dear Markey/Sin.

We are pleased to assessment that the Protegraduate Department of Physics and Essentch Centers at Essettin College, Kottayara, is organizing a two-day national workshop in Tagat VES-trailding Your Personal Science Lair. This workshop is upon to family members and collasticate the modern. The workshop is upon to family members and collasticate title modern. The workshop will offer a comprehensive convictor of Explicits, a horizone and collastic flate modern for explicit proposition of explicit propositions and projects without getting into the details of electrosics or computer programming, LapCYUS is no instrument that can be interfaced to the USB part of a computer of Audicol globes, it provides a no of topic megan membrals that can use as test applement, such as a DC preservorphy, function generator, and has explained by sensor observation for measuring physical parameters, such as temperature, pressure, and magnetic field.

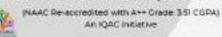
The workshop's been is to enable the participants to perform experiments independently using ExpEVID software. The software is currently available for IX's and Andreal aboves. The workshop will be conducted using Andreal phones and all the participants are expected to bring an Andreal phone with the SEILah gap installed from Coogle Pay. Store. Clab have to metall model. It has mixing and attracted individuals and anticological international and international individuals are considered individuals and confirm their participation through the online form by Caroline 2x, 2x22, federated participation will receive multifraction via real belief in Navardate 1, 2x23. House what the website for propagation of faculty members and selected students of your hastington in the

We warmly to be the active participation of both faculty members and selected attalents from your institution in this workshop. Your involvement will growth constitute framing experiences.

Thereby you for considering our invitation, and we look forward to welcoming your participants to the workshop.

Dr. Apartia Thanksopus Countinator Fred, Dr. Bills Thomas Principel. Str. Horls Jessey Mills

BASELIUS COLLEGE, KOTTAYAM





Two-day National Workshop on ExpEYES-Building Your Personal Science Lab on 3/11/23 - 4/11/2023

organized by

Postgraduate Department of Physics & Research Centre in association with Academy of Physics Teachers, Korale

> Resource Person: Dr. Ajith Kumar B P Rtd. Scientist-H., IUAC, New Delhi



8.Sc. laboratory. Department of physics , Baselius College







Session 1 (10:15 AM - 11:15 AM)

Demonstration of five experiments selected from different branches of physics.

Session 2: Hands-on (11:15 AM - 1:00 PM)

The activities in this session will make the user familiar with the usage of the input/output terminals of ExpEYES.

Session 3: Hands-on (2:00 PM - 3:50 PM)

Continuation of the previous session, covering several experiments to study the nature of abernating current and the behavior of LCR circuits, mostly corresponding to the theory taught in 12th standard. For a brief description of the theory login a quest to this LMS.

Session & (2045 PM - 4.45 PM) Programming ExpEYES using Python

Even through GUI programs are amilible for many experiments, programming ExpEYES gives a desper understanding and also embles the user to design new experiments. There are library functions to control/monitor the logar/Output terminals. Python code for some experiments presented in Session 1 will be discussed.

> Number of seats limited to 40 Reg. Fee # 400 for teachers # 200 for students

Day 2 4.11.23

Session 1: Hands-on (9:30 AM- 11:15 AM) B.Sc level Experiments

Must of the experiments in this section are part of the BSc syllabus. Conventional method requires DC power supply, oscillascope, function generator and frequency counter to perform them. Experiments like studying the Translett Response of LCR circuits is difficult with conventional equipment. Due to this reason they are currently present only in the theory part. ExpEYE8 can be used to perform all these experiments.

Session 2. (11:30 AM - 1:00 PM) B.Sc level Experiments

Session 3 (2:00 PM - 3:30 PM)

Session 4. Conclusion and Feedback (2:45 to 4:30)

ExpEYES Resources

https://expryes.in/resources/workshops.html

Contact us

Dr. Aparna Thankappan 9747620918 aparnathankappan@beselius.ac.in The Post Graduate Department of Physics and Research centre organised a two-day national workshop on "Exp-Eyes — Building your Personal science lab" in collaboration with Academy of Physics Teachers, Kerala (APT) and Mahatma Gandhi University from 03/11/2023 to 04/11/2023. Dr. Ajith Kumar B P, Rtd. Scientist-H, IUAC, New Delhi & Dr K K Abdulla, Former HOD of Physics, Farook College, Kozhikode were served as the resource persons. The workshop was organized with the collective aim of empowering students, educators, and science enthusiasts with the knowledge and skills required to set up and utilize a personal laboratory using the EXP-EYES kit.

The workshop witnessed an enthusiastic response, with 55 participants from students and teachers. The outcomes of the workshop were highly positive. The workshop enabled participants to set up personal laboratories using the EXP-EYES kit, thereby promoting a culture of independent scientific exploration. The participants expressed their eagerness to incorporate EXP-EYES into their educational and research endeavours, thus expanding the reach of this valuable tool. The feedback received from participants was overwhelmingly positive, with many expressing a keen interest in future workshops and collaborative initiatives.





List of Participants

8. National Energy Conservation Day – Celebrations

We, the Physics association celebrated the National Energy Conservation Day on 14/12/2023. In association with National Energy Conservation Day, an awareness program and a workshop were organized on December 14-15, 2023, with the aim of promoting energy conservation practices and raising awareness about the importance of sustainable energy usage. The event comprised various activities, including poster presentations, circulating energy-saving tips, pledge taking, and a workshop titled "Shine on – LED Creations Unveiled."

Awareness Program: The awareness program commenced with a poster presentation showcasing the significance of energy conservation and highlighting the adverse effects of energy wastage on the environment. The students from our department make the posters and displayed in front of our college. The posters creatively depicted the importance of adopting energy-efficient practices in daily life. Additionally, a write-up containing energy-saving tips was circulated to all departments, providing practical guidance on minimizing energy consumption in various settings. The write-up emphasized simple yet effective measures that individuals and organizations could implement to contribute to energy conservation efforts. Moreover, all the students and teachers participate in pledge-taking ceremony to express their commitment to energy conservation and sustainable practices.







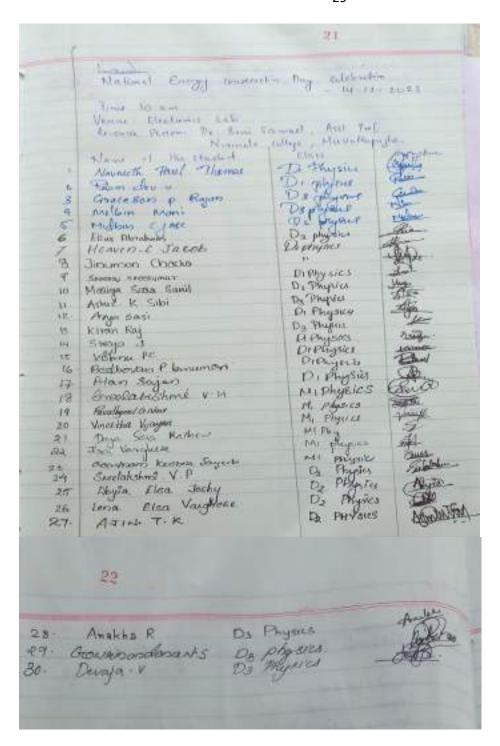




As a part of the National Energy Conservation Day, a two-day workshop titled "Shine On: LED Creations Unveiled" was organized by the association on December 14-15, 2023. Dr. Boni Samuel, Assistant Professor of Electronics, Nirmala College, Muvattupuzha served as the resource person.

The workshop commenced with an inaugural ceremony featuring Dr. Linju Ann Jacob, the Head of the Department of Physics, who emphasized the vital importance of energy conservation. Dr. Bony Samuel passionately highlighted the pivotal role that LED technology plays in realizing sustainable energy goals. Following the inspirational talks, students actively participated in engaging sessions where they were encouraged to brainstorm and conceptualize their unique ideas for Christmas decoration items using LED components. Facilitators provided guidance on the principles of LED technology and its application in creative projects. The second day focused on the practical implementation of the ideas generated on the previous day. Students were provided with LED kits and materials to bring their concepts to life. Throughout the day, students worked collaboratively, sharing ideas and troubleshooting challenges under the guidance of experienced mentors.

In Joyfiesta Baselian Expo- an exhibition cum sale on Christmas Day, organised by the college, the students gets an opportunity to showcase and sell their unique Christmas decoration items within the college premises. The event generated a festive atmosphere as students eagerly presented and marketed their products to students and faculty.



9. Seminar on career opportunities in healthcare sector by TRANSORZE Solutions in collaboration with NSDC.

The physics department organized a seminar on career opportunities in the healthcare sector on 8th January 2024. The resource persons are from TRANSORZE Solutions, in collaboration with the National Skill Development Corporation (NSDC). The event aimed to provide final year degree students with insights into various career paths within the healthcare industry.

All the final year students participated in the program actively participated in discussions, sharing their aspirations, concerns, and queries related to career choices and professional development in the healthcare sector.



Participant List

- 1. Anakha R
- 2. Ashiz.K.Sibi
- 3. Devaja V
- 4. Gowri G. Mohan
- 5. Gowrinandana N S
- 6. Jinumon Chacko
- 7. Elias Abraham
- 8. Heaven C Jacob
- 9. Graceson P Rajan
- 10. Melbin Mani Abraham
- 11. Kiran Raj
- 12. Rashid Muhammed

2.2a Competition Organised within the college

Summary:

SI No	Title of the Programme	Nature of the programme	No. of participants
1.	Quiz Competition	Intra- department	

Quiz Competition

In celebration of International Moon Day, a quiz competition was organized for physics students. The event aimed to engage students in learning about the history, significance, and prospects of human exploration of the moon.

Quiz Format and Structure: The quiz comprised multiple rounds, each designed to challenge participants' understanding of various aspects of moon missions and lunar science. Aparna Thilakan and Jissa of M1 Physics Conducted the Quiz Programme. The quiz comprised six teams, each consisting of three students. Appreciation gifts were given to the winners.



2.2b Inter-Collegiate Competition Organised

Summary:

S1 No	Title of the Programme	Nature of the programme	No. of participants
1.	16 th All Kerala Prof. Susan John Memmorial Physics Quiz Competition	All Kerala Physics Quiz	37 Teams from different colleges
2	6th All kerala Prof. V John memorial Power Point Presentation Competition	Point Presentation Competition – All Kerala	7 teams

16th All Kerala Prof. Susan John Memorial Physics Quiz Competition and 6th All Kerala Prof. V John memorial Power Point Presentation Competition



On September 21, 2023, the prestigious 16th All Kerala Prof. Susan John Memorial Physics Quiz Competition and the 6th All Kerala Prof. V John Memorial PowerPoint Presentation Competition were held at Mrs. Maman Mappila Hall, Baselius College Kottayam. These events are organized to honour the memory of renowned teachers,

Prof. Susan John K who left for heavenly abode on 15th August 2008 and Prof V. John who left for heavenly abode on 24th July 2015.

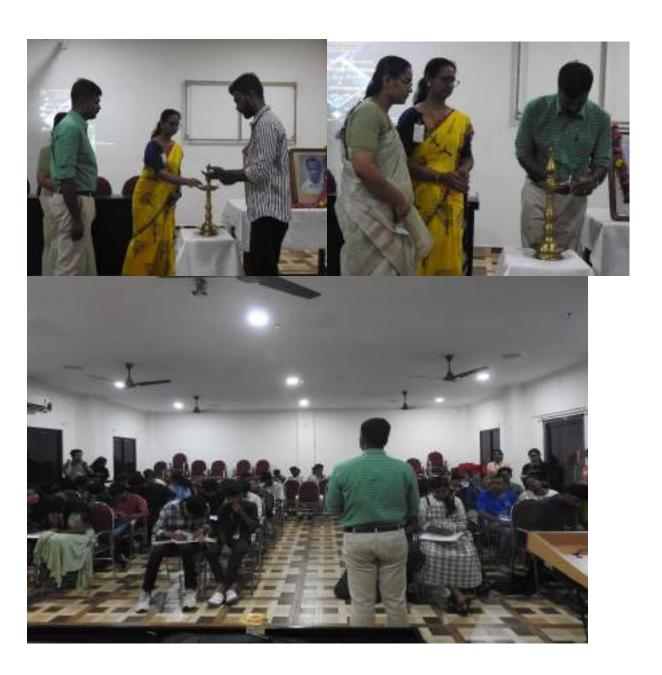
Quiz Competition

The event witnessed enthusiastic participation from 25 teams representing various colleges across Kerala. Dr. Manesh Michael, Assistant Professor in Physics at Bharata Mata College, Thrikkakara was the Quiz Master. The quiz competition, conducted by consisted of two rounds: a preliminary round and a final round. The preliminary round consists of 25 questions that tested participants' understanding of physics principles and concepts. Following the preliminary round, the top-performing 5 teams advanced to the final round, where they competed head-to-head in a high-stakes battle of knowledge and intellect. After a closely contested final round, the winners of the 16th All Kerala Prof. Susan John Memorial Physics Quiz Competition were announced: Gowrikrishna G and Devadersh S from CMS College wons the first Prize. Akshay Biju and Rijo Raju from SPAP MG University won the second Prize and Daya Sara Mathew and Keerthika Rajagopal T from Baselius College won the third place.

In parallel with the quiz competition, the 6th All Kerala Prof. V John Memorial PowerPoint Presentation Competition provided a platform for participants to showcase their research findings, projects, and presentations on various physics-related topics. 12 teams from various colleges were participated. Dr. Nibu A George and Dr. Ambika D served as judges, evaluating the presentations based on criteria such as content, clarity, innovation, and presentation skills. Aleena Ann Jacob and Devivrinda S from Catholicate College Pathanamthitta won the first prize. Jeswin George and Saurav P S from Marian College Kuttikanam won the second place.

After the competitions a valedictory meeting was convened at 3.30 pm to mark the culmination of the event. Association in charge Dr Anisha Mary Mathew welcomed the gathering, and HOD, Dr. Sindu Jones presided over the meeting. She expressed gratitude to all participants, organizers, and supporters for their dedication and enthusiasm throughout the event. Dr, Annie Cherian, Bursar Baselius College Kottayam, delivered a commemorative speech in honour of Prof. Susan John K and Prof. V John, whose legacies continue to inspire generations of students and teachers. The valedictory meeting was graced by the presence of family members of Prof. Susan John and Prof. V John, who joined the gathering to pay tribute to their beloved ones.

The Quiz Master, provided a comprehensive evaluation of the students' participation in the quiz competition, highlighting notable performances, areas of improvement, and overall observations. Dr. Manesh commended the students for their dedication, knowledge, and sportsmanship displayed throughout the competition and the prizes were given to all winners. Congratulations to all participants, winners, and organizers for making the event a memorable and enriching experience.







List of Participants

16th All Kerala Intercollegiate Prof. Susan John k Memorial Quiz Competition 2023 Registration Form

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Baselius College, Kottayam

16th All Kerala Intercollegiate Prof. Susan John k Memorial Quiz Competition 2023

Registration Form

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16th All Kerala Intercollegiate Prof. Susan John k Memorial Quit Competition 2023

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δ^{th} All Kerala Prof. V John Memorial Power Point Presentation Competition 2023

Registration Form

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6th All Kerala Prof. V John Memorial Power Point Presentation Competition 2023 Registration Form

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2.3 Cultural Programme Organised

Summary:

S1 No	Title of the Programme	Nature of the programme	No. of participants
1	Onam Celebrations	Intra department	
2	Freshers' day	Intra department	
3	Farewell to our HOD Dr. Sindu Jones	Intra department	
4	Valedictory of Association and farewell to final year students.	Intra department	

Beats 2023-24, the association of Postgraduate Department of Physics and Centre for Research, Baselius College Kottayam had conducted Onam celebration on 24/8/2023. The highlight of the event was an exciting Thiruvathrakali performance by the MSc students. Their graceful movements and synchronized steps depicted the essence of Kerala's folk-dance tradition, captivating the audience with every beat. The D1 students enchanted the audience with their spirited rendition of Nadanpattu, traditional folk songs that echoed the spirit of rural Kerala. Their lively performance infused the celebration with energy and enthusiasm. Following the fascinating performances, students and teachers alike gathered to partake in the grand Onam Sadhya, symbolizing the essence of communal harmony and togetherness.







Fresher's day on 21/8/2023 AN

Beats, the physics Association organized a Freshers Day party for the new batch of D1 and M1 students. The event was held in Mini Auditorium at self-financing Block at 1 PM, and the students participated in various activities and games to help them get to know each other.

The event began with a welcome speech by the Association teacher in charge. Dr. Sindu Jones, HoD of the Department of Physics felicitated the gathering. Following

the welcome address, the students were divided into groups, and each group participated in a series of ice-breaking activities. The activities were designed to help the students get to know each other and learn more about their shared interests and hobbies. It was a venue for cultural activities by the students where they danced and sang songs. Food and refreshments were provided.



Farewell Function to Dr. Sindu Jones

The Department of Physics at Baselius College organized a heartfelt farewell event for Dr. Sindu Jones, the Head of the Department, who has been appointed as the Principal of Catholicate College, Pathanamthitta. The event celebrated her contributions and achievements and expressed support for her new role. The event began with a warm welcome by Association teacher in charge and the meeting is presided over by Linju Ann Jacob, highlighting Dr. Sindu Jones' remarkable journey and achievements during her tenure at Baselius College. All the teachers from the Physics Department felicitate Dr. Sindu Jones, sharing their experiences and expressing their appreciation for her leadership, mentorship, and dedication. Students presented her with a thoughtful gift as a token of their gratitude and appreciation. The gift was accompanied by heartfelt messages and best wishes for her new role. Dr. Sindu Jones addressed the gathering and shared her experiences and giving thanks to all for this wonderful occasion.





Valedictory of Association and farewell to final year students.

2.4 Extension/Outreach Programme Organised

Summary:

S1 No	Title of the Programme	Nature of the programme	No. of participants
1.	A day with the kids at Govt. UP school , Muttambalam	An extension Program	All the students in the school



In celebration of International Moon Day, an extension program "A Day with the Kids" was organized at Government UP School, Muttambalam. The event aimed to foster an interest in science among the students, with a particular focus on lunar

exploration. The program featured a variety of engaging activities, including a skit, a traditional song performance, a storytelling session, and a quiz competition. The Headmistress of the school welcomed all, setting a positive tone for the day's events.

Dr. Sindu Jones HOD, delivered an inspiring introduction message, emphasizing the significance of science and the importance of scientific curiosity and exploration.

First year degree students performed a skit that creatively depicted the history and milestones of lunar missions. The skit highlighted significant missions, such as Apollo 11, which first landed humans on the moon, and recent advancements by various space agencies. Krishnendu of M.Sc. Physics performed a traditional folk song related to the moon. Jaison of MSc Physics narrated the developments in moon exploration through an engaging story. His narrative included key events such as the launch of Sputnik, the Apollo missions, and future lunar exploration plans by various countries. The storytelling format made complex scientific concepts accessible and exciting for the young audience.

A quiz competition focused on various aspects of the moon was conducted for the students. The students participated enthusiastically, showcasing their knowledge and eagerness to learn more about space science. To encourage and reward participation, gifts were given to the winners of the quiz and other activities.

The interactive and diverse activities ensured that the students remained engaged and motivated throughout the day. Positive feedback was received from both teachers and students, who appreciated the creative and educational approach of the program.







2.5 Skill Development Programme/ Courses Organised

Summary:

Sl No	Title of the Programme	Nature of the programme	No. of participants
1	"Shine On: LED Creations Unveiled"	Intra department	

As a part of the National Energy Conservation Day, a two-day workshop titled "Shine On: LED Creations Unveiled" was organized by the association on December 14-15, 2023. Dr. Boni Samuel, Assistant Professor of Electronics, Nirmala College, Muvattupuzha served as the resource person.

The workshop commenced with an inaugural ceremony featuring Dr. Linju Ann Jacob, the Head of the Department of Physics, who emphasized the vital importance of energy conservation. Dr. Bony Samuel passionately highlighted the pivotal role that LED technology plays in realizing sustainable energy goals.

Students were divided into small groups and encouraged to brainstorm unique ideas for Christmas decoration items using LED components. Facilitators provided guidance and encouraged innovation, helping students to think creatively and practically. Each group discussed their ideas, refined their concepts, and prepared preliminary designs for their LED decorations. The session ended with groups presenting their concepts and receiving constructive feedback from peers and facilitators.

The second day focused on the practical implementation of the ideas generated on the previous day. Students were provided with LED kits and materials to bring their concepts to life. Throughout the day, students worked collaboratively, sharing ideas and troubleshooting challenges under the guidance of experienced mentors.

In Joyfiesta Baselian Expo- an exhibition cum sale on Christmas Day, organised by the college, the students gets an opportunity to showcase and sell their unique Christmas decoration items within the college premises. The event generated a festive atmosphere as students eagerly presented and marketed their products to students and faculty.

2.6 Certificate Course Conducted, if any: Nil

Summary

SI No	Title of the Certificate Course	Number of Students Registered	No. of Students who successfully completed the course

2.7 Student Participation and Achievement – Outside College

SI N o	Name of the Student	Clas s	E m ai 1	Programme organised by with title of the Programme	Date of the Programme	Nature of achievement (Participation / Position to be specified))	Whe ther certif icate attac hed
1	Daya Sara Mathew and Keerthika Rajagopal T	M1 Phys ics		16 th All Kerala Prof. Susan John Memmorial Physics Quiz Competition	21/09/2024	Won third prize in All Kerala Prof. Susan John Memorial Physics Quiz Competition	yes

2	Daya Sara Mathew and Keerthika Rajagopal T	M1 Phys ics	Quiz competition conducted in connection with PHYSICA 2.0, All kerala academic competitions for college students on 31 October 2023 by St Thomas college Pala.	31/10/2023	Won First prize in Quiz competition	yes
3	Saranya Joy Krishnendu	M2 Phys ics	Quiz competition conducted in connection with PHYSICA 2.0, All kerala academic competitions for college students on 31 October 2023 by St Thomas college Pala.		Won Fifth prize in Quiz competition	yes
4	Elias Abraham	D3 Phys ics	University Youth festival		A Grade in Wind Instrument – Western	
5	Zenobius	D2 Phys ics	University Youth festival		Third with A grade in Clay Modelling	
6	Uthara Vinu	D1 Phys ics	University Youth festival		A Grade in Thiruvathira	
7	Aneena Rajendran	D1 Phys ics	University Youth festival		University Youth festival - A Grade in Thiruvathira	
8	Jewel Mariam Jose	D1 Phys ics	University Youth festival		University Youth festival - A Grade in Thiruvathira	
9	Aswini Krishna S	D1 Phys ics	University Youth festival		University Youth festival	

					- A Grade in Thiruvathira
10	Nanditha Pradeep	D2 Phys ics	University Youth festival		University Youth festival - A Grade in Margamkali
11	Aparna Satheesan , Kishore S	M2 Phys ics	Quiz PHYSICA 2.0 ,All Kerala Academic Competitions for School and College Students by Department of physics , ST. Thomas College , Palai		Participation
12	Sona Sara Sanu	M2 Phys ics	Elocution- PHYSICA 2.0 ,All Kerala Academic Competitions for School and College Students by Department of physics , ST. Thomas College , Palai		Participation
13	Sona Sara Sanu, Kishore S	M2 Phys ics	Seminar on Advances in LED Lighting in KSEB, Kerala State Annual Conference	23/9/2023	Paper presentation
14	Jaison Sabu G, Vijith A V	M2 Phys ics	All Kerala Inter Collegiate General Quiz Competition by Assumption College Autonomous Changanaserry	14/02/2024	Participation

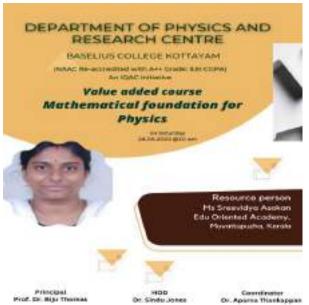
15	Keerthika Rajagopal and Daya Sara	M1 Phys ics	Prof. S L Thomas memorial intercollegiate Quiz competition by the Dept. of Physics, S B College Changanassery.	15/02/2024	Participation	no
16	Sreelakshmi and Jissa Varughese Vineetha and Keerthika Rajagopal	M1 Phys ics	All Kerala Inter Collegiate General Quiz Competition by Assumption College Autonomous Changanaserry	14/02/2024	Participation	no

(Softcopy of certificates to be attached)

2.8 Any Other activity/point/ initiative worth mentioning (Attach supporting documents)

1. Value added course- Mathematical foundation for Physics- A support for slow learners

A value-added course titled "Mathematical Foundation for Physics" was organized for D2 and D3 students who need additional support mathematics. The class conducted by Ms. Sreevidya Ashokan and focused on essential mathematical concepts from the higher secondary level that are crucial for understanding excelling in physics. Sreevidya Ashokan, an expert tutor in mathematics, took the lead

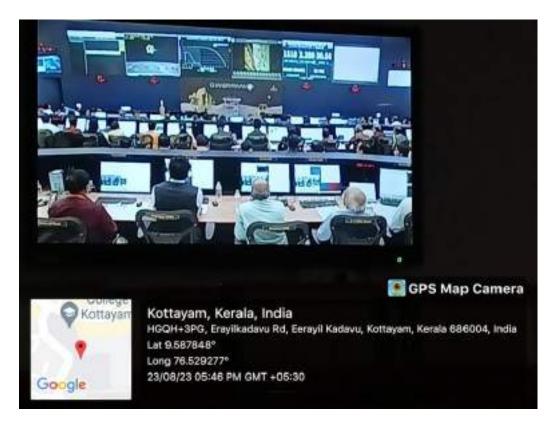


conducting the workshop. Her extensive experience and approachable teaching style set a positive tone for the session. The workshop was well-received by the students, many of whom found the review of basic mathematics extremely helpful.

2. Conducted a live telecasting of Chandrayan -3 soft landing at AP Mani Media Centre.

A live telecasting event for the Chandrayaan-3 soft landing was organized at the A.P. Mani Media Centre, Baselius College on 23/08/2023. The event was attended by teachers and students from all departments, celebrating a significant milestone in India's space exploration efforts. The event began with a welcome address by Dr. Sindu Jones, HOD of Physics highlighting the significance of Chandrayaan-3 and its mission objectives.

The A.P. Mani Media Centre provided excellent audiovisual facilities to ensure a clear and engaging viewing experience. The audience watched as the spacecraft approached the lunar surface, with live commentary explaining the critical phases of the landing. Teachers and students appreciated the opportunity to witness a historic moment in real-time, enhancing their interest in space science and technology.





3. Study Tour and Industrial Visit

Department of Physics of Baselius College organized study tour and industrial visit to Ramoji Film city and Birla Science Centre, Hyderabad for final year B.Sc. students on 2nd to 6th February 2024.

Number of Participants: 12 Faculty Coordinator: DR. LINJU ANN JACOB and Anisha Mary Mathew





4. Lab visit at School of Pure and Applied Physics (SPAP) at MG University

The Department of Physics at Baselius College organized a lab visit for postgraduate students to the School of Pure and Applied Physics (SPAP) at MG University. The visit, conducted on February 20, 2024, aimed to provide students with practical exposure to advanced physics research and laboratory techniques. Faculty members and researchers interacted with the students, explaining the principles and applications of the equipment and techniques being used. This provided the students with a deeper understanding of the practical aspects of their theoretical studies.

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Teacher-in-charge of the club		General Co-ordinator- Club Activities		

Appendix