

## PHYSICS ASSOCIATION REPORT 2023-24

The Department of Physics offers B.Sc. Physics (Vocational-Model II Applied Electronics) from the year 2001 onwards and new course-Integrated M.Sc. Programme in Basic Sciences-Physics from 2021. Department aims to up-skill knowledge in all areas of Physics. Besides, the department promotes Vocational Education Training and Energy & Environmental Protection.

**Head of the Department:** Dr. Anupama P.

**Lecture in charge of Physics Association:** Dr. Rajani Jacob

Following students were selected as the office bearers.

Association Secretary: Ms. Krishnendu K. (III IP Physics)

Committee Members: Ms. Syamini Sasi (III B.Sc. Physics)

Ms. Swaliha V N (II B.Sc. Physics)

Ms. Aruna Sasi (I B.Sc. Physics)

Ms. Nanda Anish (II IP)

Ms. Johanna Susan (I IP)

Physics association initiated and supported various social activities, training programmes and coaching for curricular and extracurricular activities.

### STUDENTS ACHIEVEMENTS

- **Ranks** in the MG University B.Sc. Physics Model II (Applied Electronics) examinations during the academic year 2022-2023.

**Shahanas T. S. secured I rank and Tresa Maria Stanley secured X rank in MG University B.Sc. Physics Model II (Applied Electronics) examinations.**

- 14 students (I year B.Sc. Physics and IP) participated in **International Conclave ICSET 2023** organized by ICT Academy of Kerala, on 19 September 2023. Among them 10 students attended workshops organized by **Google and IBM**.
- Syamini Sasi (III B.Sc. Physics) and Sandra P S (II B.Sc. Physics) attended **Intercollegiate Energy Quiz Competition 2023**, organized by Energy Conservation Society, on 29 September 2023.

- Idea of Krishnendu K.K. and team (Laya S. Pillai, Anjima K.P., Krishna V.S.) of III Integrated Physics got selected to the second level of YIP 5.0
- Idea of Manjari D. Bhattathiri and team (Nanda Anish, Jyotsana, Anna M.R.) of II Integrated Physics got selected to the second level of YIP 5.0
- Ms. Manjari D Bhattathiri (II IP Physics) and Ms. Gouri Krishnakumar (I B.Sc. Physics) secured 1<sup>st</sup> and 2<sup>nd</sup> prize in the power quiz conducted by Kerala State Electricity Board (KSEB).

- **ASSOCIATION INAUGURATION**

Association inauguration was done by Dr. P.N. Maya, IPR, Ahmedabad, Gujarat on 18 August 2023. On that day a Seminar on ‘Magnetic Trapping of Charged Particles and Pursuit of Fusion Energy on Earth’ was conducted.





● **VIRTUAL LAB WORKSHOP** : Department conducted a virtual lab workshop on 24 August 2023 for all the students from science stream. Resource person were Mr. Saneesh P. F and Mrs.Nijin N. Project Managers, Amrita Vishwa Vidyapeedham.



● **Workshop on Future Scope of Robotics:**

In association with I Hub Research and Robotics Private Limited Department of Physics conducted a workshop on Robotics on 12 September 2023. Mr.Gokul T.S and Mr. Eldho Abraham Baby were the resource persons.



- **World Space Week Celebration**

The Department of Physics organized an expert talk on ‘Exploring Space through Rockets’ in association with Vikram Sarabhai Space Centre, Trivandrum on 06 October 2023 as part of World Space Week celebration. Mr. Abhilash K.P., Division Head and Deputy Project Director, Gaganyaan Project, VSSC served as the resource person.



## Energy Conservation Day Celebration

The Department of Physics organized a Workshop on Energy Efficient Devices, on 14 December 2023 as part of Energy Conservation Day celebration. Mr. M P Mani, Secretary, Energy Conservation Society, Perumbavoor Chapter, served as the resource person.



### **Orientation for Mothers on Energy Conservation**

On 14 December 2023, Mr. M P Mani, Secretary, Energy Conservation Society, Perumbavoor Chapter, took a class on 'Energy Conservation', for mothers of our students.



### **LED Making**

The students of the Department of Physics under the leadership of faculties of the department made LED stars and sold them during the months of November and December, with the profits going towards a good cause.

## **Old age home Visit**

The funds from LED star making were donated to Daivadan, an Old Age Home in Malayattoor, during a visit on December 19th, 2023. Furthermore, celebrating Christmas at the old age home must have been a joyous occasion for both the residents and the members of the Department of Physics. This is an excellent example of how science and technology can be used for a noble cause. It is also commendable that the profits were donated to an Old Age Home, which is an often-neglected segment of society. By contributing to this cause, the Department of Physics has shown that they care about the welfare of the elderly and are willing to take concrete steps to support them.



- **Umbrella Making Workshop**

The Department of Physics conducted an ‘Umbrella Making Workshop’ on 15 December 2023. Ms. Sandra P S of II BSc Physics trained the students to make umbrellas.



- **Workshop on Introduction to technology-IR 4.0 Technology Trends and Essential Skills**

· The Department of Physics conducted a ‘Workshop on Introduction to technology-IR 4.0 Technology Trends and Essential Skills’ in association with ICT Academy Kerala, on 11 October 2023. Ms. Maya Mohan, Knowledge Officer, ICT Academy Kerala was the resource person.



- **National Science Day Celebration**

A science exhibition 'Scivista' was organized on 15 and 16 February 2024 as part of National Science Day Celebration. Around 1000 school students from nearby 8 schools visited the exhibition. Planetarium and Skywatch programme were the main attractions of the Scivista.



- **Industrial Visit**

Industrial visit was arranged for the students during 10 to 13 January to the National Institute of Oceanography (NIO). Goa. Scientists of NIO took a class on scientific research and studies on the unique oceanographic features of the northern Indian Ocean.



**Faculty Achievements:**

**Dr. Anupama P-**

- Elected as Vice President, Energy Conservation Society, Ernakulam Chapter.
- Selected as Chairman cum Chief Examiner of I Semester and II Semester Integrated M.Sc. Physics.
- Served as the coordinator of 7 Day National Level Online Faculty Development Programme on Curriculum framework in line with NEP 2020, OBE and AI Advancements, organized by The Internal Quality Assurance Cell (IQAC) of Mar Thoma College for Women, Perumbavoor, in association with The Kerala State Higher Education Council (KSHEC) from 12 October 2023 to 19 October 2023.

- Served as the resource person for Workshop on NAAC SSR preparation at Mar Thoma College, Chungathara on 29 November 2023
- Served as the resource person for academic and administrative audit at St. Kuriakose College, Kuruppumpady on 2 December 2023.
- Served as the resource person for Thejas Energy Camp organized by Energy Conservation Society held at Vazhachal on 2 February 2024

Dr. Paulose Thomas -

- Nominated as Member of Governing Body of Mar Thoma Teacher's Training College, Edakkulam, Ranni.
- Published International Journal Paper, Feba Anna John, Paulose Thomas, George Jacob & Ajith James Jose (2023) Effective interactions and dielectric study of polymer nanocomposite thin films of polyvinylidene fluoride and graphene oxide, Composite Interfaces, DOI: 10.1080/09276440.2023.2232979.
- Selected as member of Board of Examiners of II Semester Integrated M.Sc. Physics.
- Attended the five day workshop on FYUGP at M G University Kottayam.

Dr. Rajani Jacob-

Selected as member of Board of Examiners of II Semester Integrated M.Sc. Physics.

Dr. Melvi Chandy -

- Selected as member of Statutory Governing Council of our college.
- Selected as member of Board of Examiners of I Semester Integrated M.Sc. Physics.

**Doctoral Degree**

Dr. Tony Pinhero -Awarded Ph.D. in Physics from Indian Statistical Institute, Kolkata

Dr. Nimitha S Vijay -Awarded Ph.D. in Physics from M. G. University, Kottayam

### **Seminars Attended**

- Dr. Anupama P., Dr. Paulose Thomas, Dr. Melvi Chady, Dr. Rajani Jacob, Dr. Nimitha S Vijay, Ms. Athira P and Anumol attended the 7 Day National Level Online Faculty Development Programme on Curriculum framework in line with NEP 2020, OBE and AI Advancements, organized by The Internal Quality Assurance Cell (IQAC) of Mar Thoma College for Women, Perumbavoor, in association with The Kerala State Higher Education Council (KSHEC) from 12 October 2023 to 19 October 2023.
- Dr. Anupama P, Dr. Melvi Chandy and Dr. Rajani Jacob attended the One Day Workshop on FYUGP organized by IQAC on 18 December 2023.
- Dr. Melvi Chandy and Dr. Rajani Jacob attended the IIC Regional Meet at CUSAT, Cochi on 16 January 2024.
- Dr. Rajani Jacob and Dr. Tony Pinhero participated in International Conclave ICSET 2023 organized by ICT Academy of Kerala, on 19 September 2023. Among them 10 students attended workshops organized by Google and IBM.