DEPARTMENT OF PHYSICS

ACTIVITY REPORT 2022-23

Report on the Hands-on training on Assembling of LED Lamps

Organised by the Department of Physics, Sree Sankara Vidyapeetom College, Perumbavoor and Department of Physics, KKTM Govt. College, Pullut on 14.12.2022

Department of Physics, KKTM Govt. College, Pullut and Department of Physics, Sree Sankara Vidyapeetom College, Perumbavur affiliated to Mahatma Gandhi University, jointly organised a Hands-on training on Assembling of LED Lamps at the College auditorium, Sree Sankara Vidyapeetom College, Perumbavur on 14.12.2022 as part of the extension activity of the departments. Two students, Ajmalsha C A and Amjith M G of second year BSc. Applied Physics, KKTM Govt. College were the student trainers.

A training on low cost, energy efficient LED lamps can help to reduce the energy crisis of the future. Students also got an opportunity to share their expertise with the students of other colleges.

Details of the Programme

➤ Venue: College Auditorium, Sree Sankara Vidyapeetom College, Perumbavur

Date and Time : 14.12.2022 - 10.00am to 12.30pm









Report on National Energy Conservation Day Celebrations of the Physics Department

Department of Physics and IQAC conducted a **Hands-on training and sales expo on "LED Christmas Star assembling"** on the occasion of **National Energy Conservation Day** (19.12.2022) for the students of KKTM Govt. College. The programme was conducted to promote the use of LED bulbs and other light sources which consume less electrical energy.

5 students of fourth semester B.Sc. Applied Physics, Ajmalsha C A, Amijith M G, Akram P S, Govind V Kartha and Midhunkrishna M K acted as the student leaders for the LED star assembling. Star assembling was done on 17.12.2022 and sales expo was held on 19.12.2021 at 3.00 pm in the Physics lab of our department. The event was an extension activity of our department, sharing our resources for the benefit of the whole college. The students were highly enthusiastic that we have planned for the Part II of the same training in the coming months also.

Principal Dr. Nesy E. A. inaugurated the programme, Dr.Lovely George (HOD), Dr. Dhanya N.P, Dr. Vinayasree S, Ms. Sabitha P.V., Mr. Arun V, Assistant Professors of the Department of Physics, Mr. Jeeson K.V(Lab assistant), Dr. Suma C S, Mrs. Dhanya Mohan Assistant Professors and office staff, students from various departments attended the inauguration programme.

The five student leaders were awarded an appreciation certificate and cash prize.

The hands-on training helped the students to showcase their skills and to get refreshed mentally during difficult times.

Details of the Competition

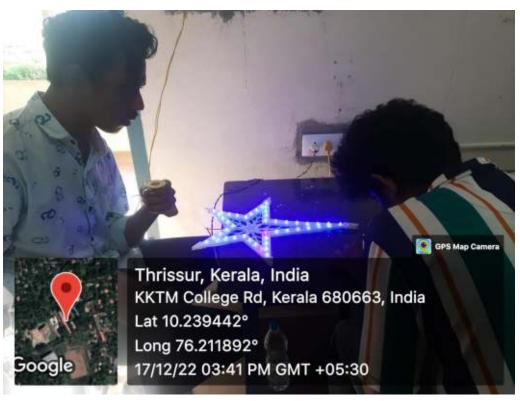
Venue: Physics Lab

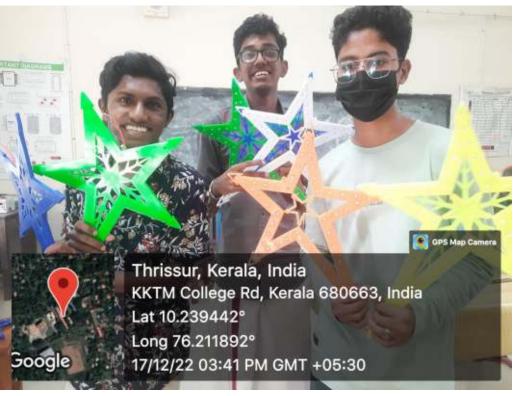
Date and Time : 19.12.2021 at 3.00pm

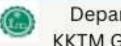












Department of Physics KKTM Govt. College, Pullut

FICATE OF APPRECIATI

this certificate is hereby awarded to of second year BSc. Applied Physics for leading the LED star making in the Department of Physics, KKTM Govt. College as part of the National Energy Conservation Day 2022 observance on 19.12.2022.

> DR. LOVELY GEORGE HOD

DR. NESY E A PRINCIPAL



Report on APT Talent search examination 2022-2023 conducted by All Kerala Physics Teachers association

22 students from B.Sc. Applied Physics, KKTM Govt. College registered for the all Kerala Physics Talent Search Examination conducted by All Kerala Physics Teachers Association (APT). 22 students attended the first level online examination held on 01.12.2022 at 2.30 pm. 20 students qualified for the next level Part B examination which is to be conducted in the month of January 2023.

Centre coordinator: Dr. DHANYA N P

HOD : Dr. LOVELY GEORGE

Report on the motivation talk on the topic "You can Win, How?"

Organised by the Department of Physics and IQAC, KKTM Govt. College on 29.11.2022

Department of Physics and IQAC organised a **talk on an energising topic "You can Win, How?** On 29.11.2022 for the students of KKTM Govt. College. The programme was conducted to make learning an interesting activity. The programme also aimed to give soft skill training to the students after the COVID 19 pandemic.

Ms. Shiju K P, Founder and tutor at Learn and grow with SK!P, certified learning Educator was the resource person for the same. 59 students and teachers of the college participated in the event. The students were highly enthusiastic.

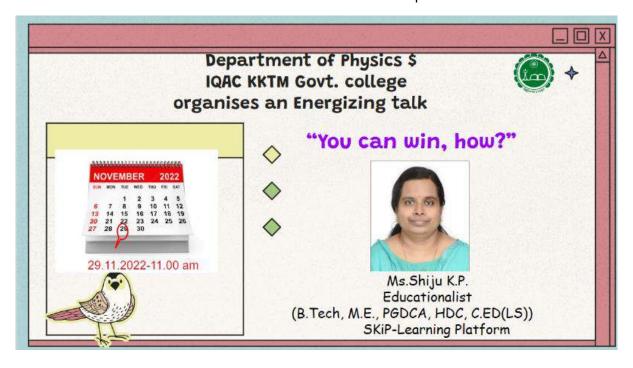
Dr. Lovely George (HOD) welcomed the gathering and IQAC coordinator Dr. Sujathan K.P. felicitated the program. Dr. Dhanya N.P, Dr. Vinayasree S. Mr. Arun V Assistant Professors of the Department of Physics were also present.

The talk helped the students to get refreshed mentally during difficult times. All the participants were given an e- certificate for their participation.

Details of the Competition

➤ Venue: 2^{Nnd} year Physics classroom

Date and Time : 29.11.2022 - 11.00am to 12.30pm











Report on the KKTM College Expo and science Day 2023 held on 24.02. 2023

An exhibition of the facilities of the KKTM Govt. College and science celebrations of 2023 were

conducted on 24.02.2023. Principal Dr. Nesy E A inaugurated the expo at 10 am in front of the main block. 300 students and 10 teachers from nearby schools and 400 students and 45 teachers and staff of KKTM Govt. College, visited the expo. The programme helped the school students to be aware of the vast facilities

available in the nearby Government College. A pamphlet explaining the features of our college was

distributed among the visitors.

13 different stalls were arranged by the different departments of our college. Physics lab and

Electronics lab were exhibited with many experiments like System of pulleys, optical illusion, Spectrometer experiments, electronic waveform generations etc. A quiz board and funny game arrangements were also

arranged for the school students. Many experiments like elephant tooth paste, chemical volcano, charts and

models were arranged in the Chemistry lab and classroom. Zoology department arranged heath corner,

zoology museum etc before the visitors. Computer hardware collections and working demos on

technologies in IoT and website and how to learn technologies equip for jobs were been explained to the

students by students in the computer lab. Botany department arranged a wide variety of plants, fruits, different botanical gardens and instruments in both of their the labs. Puzzles in mathematics, different

games were arranged by the Mathematics department. Travel and Tourism department stall was arranged

with different charts, models etc and a film show was also arranged. History museum was very well

organized with different photographs and models of different era. Gymnasium of the Physical Education

department was also open for the public. Malayalam department exhibited and explained the M N Vijayan

library and archives of the department.

Ideas and hard work of the team joined together to make the event successful. The financial support

for the programme was done by PTA of our college. The programme was an outreach programme of KKTM

Govt. College for the public.

Details of the Expo

Date: 24.02.2023

Time 9.30am to 3.30pm

Venue: Laboratories and classrooms of the college



BROCHURE



Inauguration by Principal Dr. Nesy E A





PHYSICS LAB



ELECTRONICS LAB



CHEMISTRY





ZOOLOGY

LAB



COMPUTER SCIENCE







MATHEMATICS

EXPO



BTTM



HISTORY MUSEUM



MALAYALAM DEPARTMENT

Student Participations in Quiz competitions



Govind V Kartha, 2nd BSc Applied Physics and Emil, 2nd BA History bagged 3rd prize in district level quiz competition conducted by Forest department, Thrissur District in connection with Wild Life Week Celebration 2022





University Rank holders 2023



Report on the Courses and Career after BSc. Physics

The Department of Physics at KKTM Govt. College, Pullut, in collaboration with St. Xavier's

College for Women Aluva and SreeSankara Vidyapeetom College Valayamchirangara, organized an online session on "Courses and Career after BSc. Physics" on March 10, 2023. The session was held

via Google Meet and was attended by 35 students.

The resource person for the session was Mr. Vishnu M Warrier, a former student of SreeSankara

Vidyapeetom College and a Junior Research Fellow in the Department of Atmospheric Science at

CUSAT. Mr. Warrier spoke about the various non-conventional career opportunities and courses

that are available to students after graduation in Physics.

During the one-hour talk, Mr. Warrier provided insights into the diverse range of career paths

available to physics graduates, including opportunities in academia, research and development, engineering, healthcare, finance, and more. He also discussed some of the latest advancements in

the field of physics and highlighted the importance of keeping up-to-date with new developments

and technologies.

Overall, the session was extremely useful for the students who participated, as it provided them

with valuable information about the many opportunities available to them after completing their BSc. Physics degree. The collaboration between the three colleges and the use of online technology

to facilitate the session also demonstrated the commitment of the colleges to providing their

students with the best possible education and career guidance.

Date and Time: 10.03.2023 7.00 pm

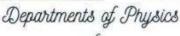
Platform used: Google meet













Sree Sankara Vidyapeetom College, Valayanchirangara KKTM Govt. College, Kodungalloor St. Xavier's College for women, Alwa & Career Guidance & Placement Cell, S.S.V. College



Jointly organise an online session on

Courses and Career After B.Sc. Physics

on 10 B 2023, friday at 7 pm via Googly meet

Resource Person Mr. Vishnu M. Warrier. Former student of 3.3. V. College & Junior Research Fellow, Dept. of Atmospheric Science, Cusat

Organisers. HaDs of Departments of Physics Dr Bindu K.R. (3.3. V. Callege) Dr Lovely George (KKTM College) Dr Joissy Mathew (St Xavier's College)

Link will be provided haif an hour before the session

BROCHURE





Report on Study Tour 2022-2023

Visit to Scientific Institutions, being a compulsory element of curriculum as per the syllabus of BSc. Programme in Applied Physics under CUCBSS of Calicut University, Department of Physics has conducted a study tour to Space Musueum at Vikram Sarabai Space Centre, Thiruvananthapuram on 31.01.2023. The team consisted of 26 students and two teaching staff.

VSSC Space Museum is in a majestic church building which was St Mary Magdalene church till the 1960's. This place is considered as the birth place of Indian Space Programme. It was in this church the first rocket systems were assembled and integrated. The building assumed multifaceted roles in the beginning of ISRO by acting as the first lab and as the main office for scientists in the early days. The Bishop House, forming part of the church, functioned at that time as the office of the Director, TERLS. As the scientific activities gathered momentum, new projects came up, which necessitated the construction of new buildings. The first in the line were the Control Centre and then the R&D complex on the Veli Hills, all of which relegated the church building into the background. But the good old church refused to go into oblivion! It sprang back to life with renewed vigor. It was converted into a photographic facility, this time as the official chronicler of the Indian Space Programme. In 1985, the church was converted into VSSC Space Museum, which is now visited by thousands every month. The space museum show cases the history and achievements of Indian Space Programme.

The students visited the museum premises which showcase a full-scale model of Polar satellite launch vehicle (PSLV), its heat shield and the fourth stage solid motor of ASLV. The scaled down models of launch vehicles PSLV, GSLV, GSLV Mk III and ATV are also erected in Space Museum premises.

Space Museum in addition provides a tell-tale account of Indian space program from its infancy. Information about the history, evolution, current scenario and future road map of ISRO is well described using static models, working models and information panels. The introductory area projects the history and working motto of Indian space program. The evolution of sounding rockets with the original scaled model of RH-200, which is launched from TERLS every month, is portrayed in the next section. The evolution of Indian satellites and its applications starting from Aryabhatta, the first Indian satellite is well described with the help of static and working models. The experimental and operational launch vehicles of India are detailed in the next section. The visitors will get a detailed account of rocket propulsion, aerospace structures along with navigation, guidance and control system from the next section. One of the chief attractions of VSSC Space Museum is that it houses the original recovered capsule of Space Capsule Recovery Experiment (SRE-1) – the actual module which has returned to earth after a few days in orbit. The models of space science and exploration missions are also there in addition to the future launch vehicles like SSLV, RLV and Human-rated GSLV Mk III in the concluding section. A theatre which projects a video show regarding the successful path way of ISRO enlighten the visitors on the significance of ISRO in their daily activities.

Next day we visited Kanyakumari and some historical places and the students got a chance to see the diversity of ideas, places and culture.

The study tour was an opportunity for all, to get a first-hand enlightening learning experience and also helped them to understand the culture and beauty of the places and also to develop a strong bond between each other.





Pullut, 17.02.2023

Dr. Dhanya N P
Assistant Professor (Staff Coordinator)

Dr. Lovely George HOD, Physics