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HENRY BAKER COLLEGE MELUKAVU

Department of Physics

ACADEMIC
YEAR

2017-18

FROM DARKNESS INTO MARVELLOUS LIGHT

Henry Baker College, Melukavu Is a Christian, Minority, Co-Educational, Government-aided Arts and Science College Established In 1981, affiliated to Mahatma Gandhi University, Kottayam, Kerala.

**DEPARTMENT OF PHYSICS
HENRY BAKER COLLEGE, MELUKAVU**

Activity Report 2017-2018

1. Physics Association Inauguration and Invited lecture

The Physics Association Inauguration for the academic year 2017-2018 was organised by the Department of Physics on 8th November 2017 at the Seminar Hall, Henry Baker College, Melukavu. The meeting commenced with a prayer song at 10 am. Dr. Jincy Devasia, HoD Physics, welcomed the gathering. Dr. G. S. Gireesh Kumar, Principal addressed the audience. The activities of the Physics association was inaugurated by Dr. Joe Jacob, (famous for the discovery of Supercluster ‘Saraswathy’) Associate Professor in Physics, Newman College, Thodupuzha. Dr. Joe Jacob delivered a talk entitled ‘*Hierarchical Structures in the Universe*’. He introduced the basic concepts of Cosmology to our students. The interaction with such a renowned Cosmologist inspired and piqued our student’s curiosity. They got an opportunity to know more about other galaxies and universe. 45 students participated in this event.



Inaugural address by Dr. Joe Jacob



2. 'Curios'- A PowerPoint presentation on Recent Advances in Physics

To enhance the scientific temper of our students, they were given opportunity to deliver lectures on Recent Advances in Physics. III B. Sc students introduced the topic 'Fifth force in nature' on 14th December 2017. II B. Sc. students presented the topic 'Gravitational Waves', the topic for which 2017 Physics Nobel Prize was awarded, on 15th February 2018. All of them used ICT to express their ideas. 45 students benefitted through this programme. This programme enabled the students to inculcate awareness in the interesting innovations in Physics and also helped to develop the intellectual capacity of our students.

3. Industrial visit to Thumba Equatorial Rocket Launching Station (TERLS)

An industrial visit to Thumba Equatorial Rocket Launching Station (TERLS), a key facility of the Indian Space Research Organisation (ISRO) at Thumba and Priyadarshini Planetarium, Thiruvananthapuram was held on 8th December 2017. The youngsters got an opportunity to visit

the space museum in the VSSC campus which has a display scale models of rockets and satellites. A documentary on the history of the Indian space programme was screened on the occasion. During an interaction with VSSC staff, they were given a glimpse of the birth of Indian Space Programme and various space-related programmes planned by ISRO. Priyadarshini Planetarium is one of the most versatile planetariums in India. The main GM-11 star field projector here can project almost all the constituents of the visible universe. It can also simulate the star-studded night sky over any location on the earth, on any day up to 12,500 years back or 12,500 years into the future. It was really a unique experience for 46 students and 3 teachers.

4. Super blue blood moon - An awareness programme

An awareness programme (video presentation) on Super blue blood moon was held in the college seminar hall on 31st January 2018. Professor Liza George, HoD of Physics, delivered a lecture on Blue Blood Super moon, a rare natural phenomena (lunar eclipse) which occurred after 152 year, on 31st January 2018. She explained the peculiarity of this lunar eclipse and this programme gave an insight to the rare natural phenomena occurring in nature for the entire student community. Sixty students from various departments participated.

5. One day seminar : National Science Day 2018

The Department of Physics observed National Science Day in association with Breakthrough Science Society, Kottayam on 28th February 2018 in the seminar hall at 10 am. The meeting started around 10 am. Prof. Liza George delivered the welcome address. Dr. G. S Gireesh Kumar, Principal gave the presidential address. Our chief guest, Professor T. N. Thankachen, Department of Electrical and Electronics, Rajiv Gandhi Institute of Technology, Kottayam delivered the inaugural address. The meeting was structured in sessions.

Session- I

(i) **Science lecture** - Professor T. N. Thankachen, Department of Electrical and Electronics, Rajiv Gandhi Institute of Technology, Kottayam delivered a lecture on '**Science in Ancient India- Myth & Reality**'. His talk was mainly on the rich scientific tradition in the past. He also discussed the formation of Indian scientific culture and credibility of the various myths circulated by passing off mythology as history. The students and teachers of our college and higher secondary students from C.M.S Higher secondary school, Melukavu participated.

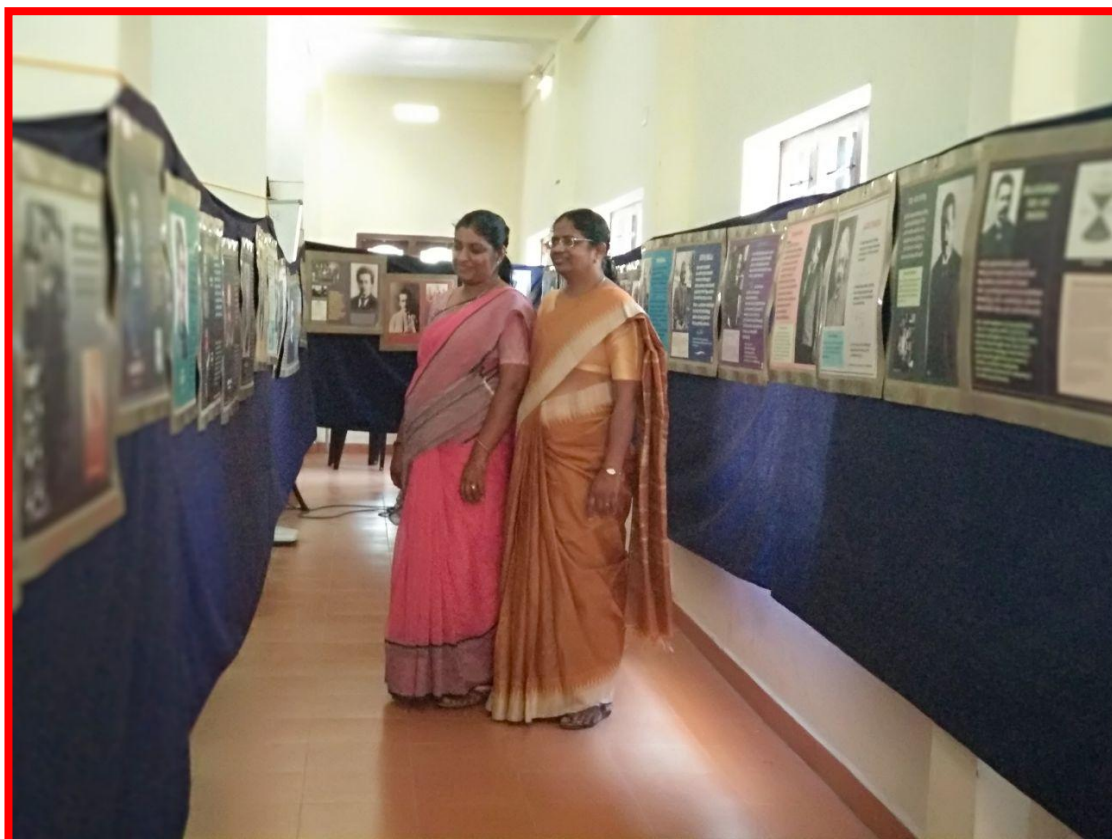


Science Lecture by Professor T. N. Thankachen

Session II

ii) **Poster exhibition** – A poster exhibition on '**Life & Contributions of Albert Einstein**' was also held. It was open to all students and teachers at the college.





(iii) Science quiz competition - A science quiz competition on ‘**Science & scientists of pre-independent India**’ was held for undergraduate students of this department and higher secondary students of C.M.S Higher secondary school, Melukavu. After preliminary round (written exam) five teams were selected for the final round. Jeleetta Babu & Akhaye Gigi of II B. Sc. won Ist prize.

Session III

(iv) Demonstration of physics experiments to higher secondary students –

As part of our knowledge sharing programme our students demonstrated physics experiments which are not familiar to higher secondary school students in the afternoon session.




Knowledge sharing programme to higher secondary students



Science Quiz Competition

'Ask the right questions, and Nature will open the door to her secrets'
Sir C. V. Raman

National Science Day 2018

28 February 2018
Department of Physics,
Henry Baker College, Melukavu

in association with
Breakthrough Science Society, Kottayam

Sir/Madam,
National Science Day is commemorated on 28th February every year in the honour of Sir. C. V. Raman, who discovered Raman Effect in 1928. We are also celebrating National Science Day on 28th February with various programmes. We cordially invite you to be a part of this venture.

Prof. Liza George
Head, Department of Physics

- ▶ Science Lecture
- ▶ Poster Exhibition
- ▶ Quiz Competition

- ▶ Demonstration of Physics Experiments to Higher Secondary Students

Time: 10.00 am
Venue: College Auditorium

Programme Schedule

28th February 2018

Registration	: 9.45 am
Inauguration	: 10.00 am
	Dr. G. S. Gireesh Kumar Principal, Henry Baker College, Melukavu
Poster Exhibition	: <i>'Life & Contributions of Albert Einstein'</i>
Session I 10.30 – 11.15 am	: Invited talk on <i>'Science in Ancient India- Myth & Reality'</i> : Prof. T. N. Thankachen (Retd.) Dept. of Electrical and Electronics Rajiv Gandhi Institute of Technology, Kottayam
Tea break	
Session II 11.30 – 12.30 am	: Quiz competition on <i>'Historical achievements of Indian Scientists'</i>
Prize distribution	
Lunch break	
Session III 1.30 – 4.00 pm	: <i>'Demonstration of Physics Experiments'</i> to Higher secondary students.

6. Alumni meeting & farewell to Prof. Liza George

After 27 years of meritorious service, Prof. Liza George was retiring from service. On this occasion a warm farewell meeting was conducted on 3-3-2018 at college auditorium. Retired teachers and 65 alumni members participated in the meeting.



Prof. Annie George, Retired HOD, Physics department, addressing the gathering
