PHYSICS ASSOCIATION REPORT

(2015-16)



EXBURANCE - FULL OF ENERGY

01.03.201	16
It gives me great pleasure to present the report on the activities of Physics Association "EXBURANCE" for the academic year 2015-16.	
Anitta Thoma	as
Secretar	ry

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Farewell To

DR. MARTKUTTY THOMAS

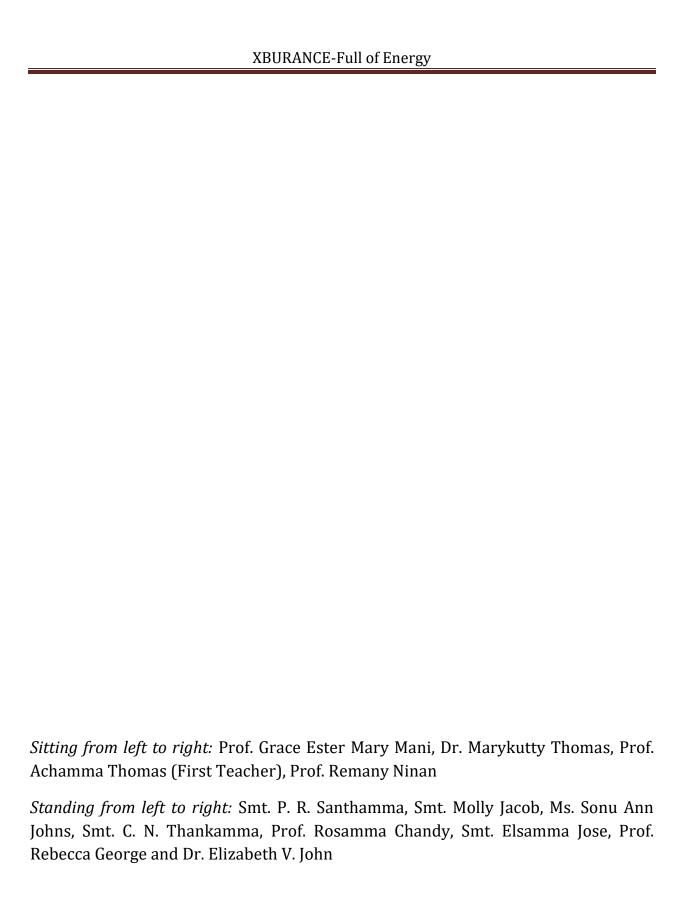
MRS. ANCY PHILIP

Photo of the Year

A great moment for the Department of Physics as our first teacher, appointed in 1957 comes back to the department for the first time!!

The first HOD, Chev. V. J. Joseph Kandoth appointed Prof. Achamma Thomas was the first teacher appointed; she was literally in-charge of the department. She did the planning and set up the Physics lab and the equipments. As she moved to Madras Christian College, she handed over to Prof Remany Ninan (still holding hands), who served as HOD for 22 long years. Prof Rosamma Chandy (1971-2004) served the department for 33 years. Prof Rebecca George served the institution for 33 years, was HOD for 2 years (1967-2000) and is continuing as a councilor of the college. Prof Rosamma Chandy (1971-2004) served the department for 33 years. Dr. Marykutty Thomas was the first to take PhD. from the department and is serving as HOD from 2007. She is retiring this year after 34 years of service. Prof. Susy Philip is the Vice Principal of the college from 2014. Dr. Elizabeth Vakkechalil John is the youngest faculty appointed to the department of Physics on June 2nd 2014.

This picture becomes special as it has the eldest and the youngest teachers appointed to the department of Physics. Also this picture has the five students of first Physics batch and Ms. Sonu Ann Johns from 2009-12 batch who is at present the guest lecturer at the department. Thanks to the photographer Mr. Balachandran V.R. who captured this beautiful moment on October 2nd 2015 during BCM Alumni meeting.



EXBURANCE Office Bearers

President : Ms. Mariya Mary Paul (IIIrd DC)

Vice President : Ms. Juhy George (IIIrd DC)

Secretary : Ms. Anitta Thomas (IInd DC)

Treasures : Ms. Fiona Saju (IIIrd DC)

Ms. Thankam Regi (IInd DC)

Ms Anjali Anil (Ist DC)

Magazine Editors : Ms. Steni Elizabeth Abraham (IIIrd DC),

Ms. Thaslima Ashraf (IIIrd DC),

Ms. Ancymol Chacko (IInd DC),

Ms. Jeny Jose (IInd DC)

Ms. Aleena Joy (Ist DC)

Ms. Sreelakshmi G (Ist DC)

Executive Members : Ms. Asha Anna Antony (IIIrd DC),

Ms. Manisha M (IIIrd DC),

Ms. Maria Jacob (IInd DC),

Ms. Shilpa Thomas (IInd DC)

Ms. Litty Lukose (Ist DC)

Ms. Diya Joji (Ist DC)

Competition in-Charge : Ms. Gopika Jayaram(IIIrd DC),

Sr. Ancy Anto (IInd DC)

Ms. Amrutha Raj (Ist DC)

Teacher in-charge : Dr. Elizabeth V. John, Asst. Prof., Dept of Physics



EXBURANCE Office Bearers with HOD, Dr. Marykutty Thomas, Associate Professor, Prof. Susy Philip and Teacher in-charge, Dr. Elizabeth V. John

Association Activities

PHYSICS ASSOCIATION REPORT

(2015-16)

THE BEGININNG

June 24th 2015: Physics association activities started on June 24th 2015. The association meeting began with a prayer, invoking the showers of blessing in the coming years. The Physics association was named "Exburance-full of energy", for the year 2015-2016 was formed and various leaders were elected. This year began with 36 students in III year degree class and 30 students in II year degree class. First year will join later as the admission process proceeds.

After the meeting it was decided that an association meeting would be held on every Tuesday of the first week of the month.



INAUGURAL CEREMONY

Aug 17th 2015: Our Association Exburanzia was inaugurated officially by Retd. Prof Daisy Kurian, Dept of Physics, BCM College. We were blessed to have her as our Chief Guest and she enlightened us with her wise words. Our HOD Dr. Marykutty Thomas welcomed the gathering, The meeting was presided over by the president, Ms. Mariya Mary Paul and Secretary Ms Anitta Thomas delivered the vote of thanks.



FRESHERS DAY

Aug 17th 2015: A new batch of 36 students hailing from Kannur to Trivandrum joined B.Sc. Degree course during this academic year. They were welcomed to our Association Exburanzia with full of energy and lots of love. Cultural events were arranged by 3^{rd} year and 2^{nd} year students.

EXHIBITION VAJRA 2015

July 21-22 2015: Our association activities marked a beginning with an active participation in Vajra Expo held on $21^{\rm st}$ and $22^{\rm nd}$ July as the part of the Diamond Jubilee celebrations. A whole-hearted participation was seen from our students and teachers. All, including our Patron Mar Mathew Moolakkattu appreciated the work done by Physics association.





UGC SPONSORED SEMINAR

Aug 6-7, 2015: A two day UGC Sponsored Seminar on Energy Conservation, Waste Management and Organic Farming was held in our college auditorium on 6th and 7th of August. The Seminar was inaugurated by Dr. R. Sasikumar who is the acting principal and professor in Mechanical Engineering in RIT Pampady. The presence of Prof. Sheela Cherian our Principal with her presidential address has enlightened the function. The seminar began with the classes by Mr. Suresh Babu, Energy Auditor of Bureau of Energy Efficiency who took the first session of our seminar. Later, the second session was taken by Mr. Mneme George Director of Chetana Media Services and Chief Editor of Karishakarangam. By this the first day came to an end.

The second day of the seminar was made into an interesting day by Mr. Anil Raj, Assistant Engineer of KSEB who had made his session interactive. A class by Dr. Punnen Kurian who is a lecture in the Dept. of Zoology in St. Mary's College Manarcard was taken. The class was very interesting since we came to know more about Waste Management. By this the seminar came to an end. Through this seminar we managed to aware the students about Energy Conservation, Waste Management and Organic Farming.

HIROSHIMA DAY

Aug 6 2015: On this day in 1945, an American bomber drops the world's first atom bomb, over the city of Hiroshima. This brought vast destruction and demolition in Japan. To remember this day and to stand against such destruction due to atom bomb again, our students also prepared sodako (paper crane) and took pledge to stand for world peace.



VYKARI- THE LECTURE SERIES

Aug 19 2015: We organized a lecture as part of Vykari- the lecture series as part of Diamond Jubilee Celebrations and invited the very vibrant Dr. Divya S Iyer IAS, Assistant Collector of Kottyam to the lecture series. Dr. Divya motivated students for civil service career. The section was very interactive and attractive.

ALUMINI VISIT

Aug 20 2015: Ms. Prathyusha K. R., former BSc Physics student visited the department and had an interactive section with Physics students. She finished her PhD. from IIT Madras and now doing Post Doctoral Fellowship at University of Dundee, United Kingdom. This section was very informative and students asked many questions related to possibilities of doing higher studies in India and abroad.



ONAM CELEBRATIONS

August 21, 2015: Onam is our state festival and every Keralite carries this warm feeling in his/her heart. Physics Association celebrated Onam, with different games for students. Our Vice Principal, Prof. Susy Philip gave the Onam message. Pyasam was also distributed. The new generation took a selfi as well!!

TEACHER'S DAY CELEBRATIONS

Sept 8 2015: Celebrated Teachers' day and Dr. Marykutty Miss's birthday. Teachers spoke about their teacher who inspired them very much. Cultural events were organized and competitions for the teachers were arranged. Sweets was also distributed.





POWER QUIZ

Oct 13th 2015: Organized inter departmental Power Quiz in association with KSEB. Ms. Renjumol Remesh IIDC Physics won first prize and Ms. Anet Elsa John III DC Physics won second prize. They were selected to the inter collegiate Power quiz organized every year by KESB.





SHORT STORY COMPETITION

Nov 25, 2015: Association conducted inter departmental Science fiction short story competition on the topic Time Machine to mark the 100 years of general theory of Relativity by Albert Einstein. Ms Athira Roy II DC Economics won first prize, Ms Aswathy Vijay IIIDC Physics won second prize and Febamol ES IIDC Zoology and Tessia Sebastian IIDC B.Com Tax shared third prize.



ALUMINI VISIT

Dec 16th 2015: Our alumni Ms. Karhika Menon gave a motivational talk for the students. As the topper of B.Sc. Physics batch 2013-14, she helped students to understand Physics well and ways to prepare for national level masters enterence examinations. The interaction with the alumini was very helpful for students. Ms. Karhika Menon is now perusing her masters in Physics at National Institute of Technology, Karnataka.



PENCIL DRAWING COMPETITIONS

Jan 21, 2016: Organized inter departmental Pencil drawing competition as part of National Science Day celebrations, on the topic a science innovation that attracted me the most. Ms. Kavyapriya B, II DC Physics won first prize, Ms. Smitha KS, III DC Economics won second prize and Sr. Julia II DC Sociology won third prize for the pencil drawing competition.



IIIDC TOUR

Feb 1-4 2016: The third year BSc Physics students went to tour from Feb 1st to 4th with Dr. Marykutty Thomas and Prof. Susy Philip to Bangalore. It was an educational cum entertainment tour for the students. The tour started at wondela Kochi, the same day went to Bangalore and visited Visvesvaraya Industrial & Technological Museum, HAL Aerospace museum, Lal bagh, Bannerghatta Zoo, safari and National Park, Meenakshi Mall etc.





ATTENDED ARTS AND SCIENCE EXHIBITION- SAWISHKARA

Feb 12 2016: Our I DC Physics students with Dr. Elzabeth V. John attend the two day Science and Arts exhibition Sawishkara organized by St. Stephens College Uzhavoor. It was a good experience especially to first year students as they could only partially attend the Vajra exhibition organized in BCM College.





NATIONAL SCIENCE DAY CELEBRATIONS

Feb19th 2016: National Science Day is celebrated every year to mark the discovery of the Raman Effect by Dr, C. V. Raman. We celebrated National Science Day with various activities to trigger the scientific aptitude and popularize Science among the students. This programme was sponsored by Kerala State Council for Science, Technology and Environment, TVM and supported by Department of Science and Technology, Govt. of India. The function was inaugurated by Dr. Vincent Mathew, Associate Professor, Central University of Kerala. Dr. Markutty Thomas, our HOD welcomed the gathering and Prof. Sheela Cherian presided the function. Various activities were organized for departmental, inter-departmental and intercollegiate students.



> Scientific Talk

Dr. Vincent Mathew gave a scientific talk on the topic 'Physics of Nanoparticles'. Dr. Vincent Mathew gave a good idea about the world of Nanoparticles including his resent research in the same area. He also spoke about the possibilities of research activities in other fields of Science including in Chemistry and Biology.

> Inter Collegiate Essay Competition

Inter collegiate essay competition on the topic 'Atomic energy serves humanity' conducted in this occasion. The essay competitions were already announced by newspaper and broachers to different colleges in Kerala. All the essays were received by Feb 10th and were evaluated. The best five essays were called on Feb 19th for a speech on the same topic. The final prizes were announced based on essay and their speech. Ms Gadha R, Baselious College, Kottayam won first prize (Rs. 3000/-), Ms Aswathy Vijay, BCM College Kottayam won second prize (Rs. 1000/-) and Ms Ashlin Jacob, Baselious College, Kottayam won third prize (Rs. 500/-), Ms. Liya Mariya Varghese and Ms Alina T. Scaria bagged consolation prizes.



Science Quiz Competition

National Science Day was also marked with departmental Science quiz competition. Mr. Binto Binoy was the quiz master, and two teams each from all degree classes participated in the competition. The quiz competition took students through a wonderful experience including audio and visual rounds. Ms. Asha Ann Abraham and Ms Ashly Jose of III DC won first prize and Ms. Aswathy Vijay and Ms Manisha M of III DC won second prize.



Short story and Pencil drawing Competition

Inter-departmental Science fiction Short story competition on the topic Time Machine and pencil drawing competition on the topic the science invention that attracted me the most was already conducted. Its prizes were given during this function.



FAREWELL

Feb 19 2016: The Physics Association gave a glorious farewell to Dr. Marykutty Thomas. Madam's family and retired teachers were also part of this function. Teachers shared their memories and students did splendid performances. Students also prepared a visual treat by making a presentation connecting old and new memories of their dear madam. Dr. Marykutty Thomas and Madam'a husband Dr. Sebastian Aikara also spoke on this occasion. A memento as a token of our love was also presented to Madam.



HAND WRITTEN MAGAZINE

To boost the creativity of the students, a hand written magazine is published every year, including the hand written write ups, poems, painting etc of the students. This year Exburance published the magazine called 'Aula Fiscica' meaning Physics classroom. This include scientific and non-scientific articles, English, Hindi and Malayalam articles, pencil and pen drawings and so on. As student editors Ms. Steni Elsabeth Abraham and Thaslima Ashraf along with sub editors have binded together the creativity of their friends in this hand written magazine. This hand written magazine was released on 29th February 2016 by Dr. Marykutty Thomas



Extracurricular Activities

NATIONAL SERVICE SCHEME

Students of Physics Association actively participated in the National Service Scheme activities. They were part of seven day residential camp held at Venmani-Pattyakudi Colany, Idukki and Dr. Elizabeth V. John took a seminar on Energy Conservation, during the camp on 26th Aug, as an extension activity of 2 day UGC Sponsored Seminar on Energy Conservation, Waste Management, and Organic Farming. Physics students proudly became part of all the NSS activities including organic farming, zebra line painting etc.

XBURANCE-Full of Energy

The following students are the NSS volunteers from Physics association.

Anju Sajan, I DC

Aleena Joy, I DC

Riya Teesse Abraham, I DC

Thankam Reji, II DC

Dona Shaji, II DC

Caroline Elza Luke, II DC

Binila Benny, II DC

Mariya Jacob, II DC

Saranya V. S., II DC

Parvathy Mohan, II DC

Prof. Anil Stephen

NSS Program Officer

WALK WITH A SCHOLAR

Walk with a Scholar is a new initiation started in the academic year 2014-15, to identify thirty best students every year from first year undergraduate courses, to orient and motivate them more towards higher education and employment. Five students each from II DC and I DC BSc Physics have been selected for walk with the scholar programme. Dr. Elizabeth V. John is the internal mentor for I DC students, Prof. Liju Alex and Dr. Annu Thomas are the internal mentors for II DC students. This is a great opportunity for the students to walk extra miles beyond the limits of the syllabus.

XBURANCE-Full of Energy

The following students are selected from Physics Association for walk with a scholar programme.

Arya A, II DC

Krupa Elsa Varghese, II DC

Ashamol C. S., II DC

Thankam Regi, II DC

Maria Jacob, II DC

Aleena Joy, I DC

Thajnu Humayoon I DC

Anju Sajan I DC

Roshna N Shad I DC

Anumol Chacko I DC

Dr. Elizabeth V. John

WWS Internal Mentor

NCC

Students of Physics association actively participate in NCC also. They have attended various state level and National camps and came out with flying colors. The achievements of Ms. E. V. Parvathy are remarkable. She is the only Senior Under Officer in our college now.

XBURANCE-Full of Energy

The NCC Cadets from Physics Association are

Ms. E. V. Parvathy I DC

Ms. Roshna N. Shad I DC

Ms. Anumol Chacko I DC

Ms. Riya Tomy II DC

Ms. Vinduja K.S. III DC

Dr. Reeja P. S.

NCC Officer

Academic Achievements

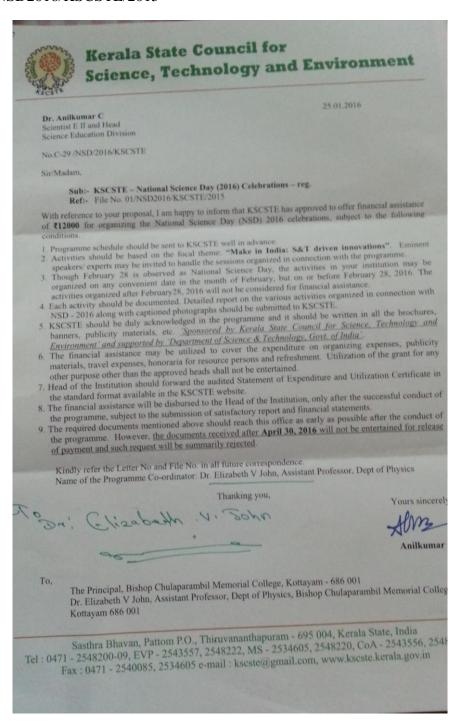
100% PASS

We are very proud that our students of the batch 2012-2015 who secured 100% pass in the B.Sc. Degree Examination.



HONOURS RECEIVED

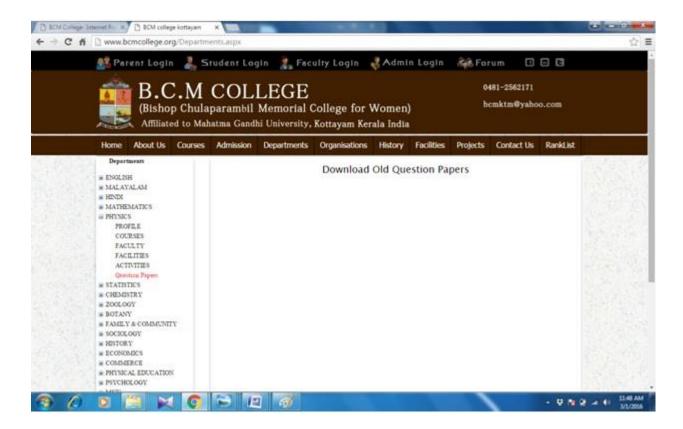
Jan 25 2016: Received a financial assistance of Rs 12000/- from Kerala State Council for Science, Technology and Environment for organizing National Science Day Celebrations. Ref:-File No. 01/NSD2016/KSCSTE/2015



Best Practices

PREVIOUS YEAR QUESTION PAPERS UPLOADED

Previous year scanned University question papers were uploaded in the college website. This will give easy access for the students to download their question papers from the website.



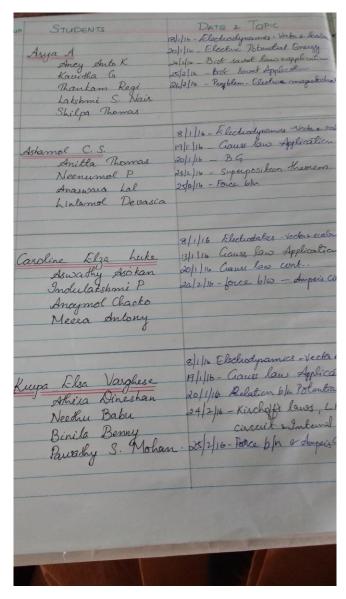
EQUIPPED WITH LCD PROJECTOR

The third year class room (Room 314) is equipped with LCD projector, so that students will get a new experience to attend to lectures as power point presentation. Various papers including Computational Physics, Relativity and Spectroscopy of this semester were taken using ppt. Students also took their seminars using power point presentations.



INTRODUCED PEER TEACHING

Peer teaching was introduced in all Physics classes. Students are divided into groups and a leader is selected. Their leader will be an outstanding student and teach each portion to other students. This will help every student as the leader will get upper hand in her knowledge and other students will get an opportunity to learn again. This is an already proved method of study and we wish to maintain the 100% pass every year.



Student Achievements

INTER COLLEGIATE COMPETITIONS

Ms. Aswathy Vijay and Ms. Manisha M of III DC B.Sc. Physics had won first prize for the Prof. Mohan Kurien Memorial All Kerala Inter Collegiate Physics quiz competition held by the Department of Physics, CMS College, Kottayam.



Ms. Aswathy Vijay and Ms. Manisha M had secured 2nd prize for the All Kerala Inter Collegiate Physics Quiz held in Assumption College Changanassary.

Ms. Ashley Jose and Ms. Asha Anna Antony had secured 2nd prize for the Presentation Competition in Assumption College Changanassary.



Feb 19 2016: Ms. Aswathy Vijay of III DC Physics won second prize in inter collegiate essay competition on the topic Atomic Energy Serves Humanity organized by Dept of Physics, BCM College Kottayam as part of National Science Day celebrations.

Feb 24 2016: Ms. Aswathy Vijay and Ms. Manisha M had won first prize for the Science quiz held at Sree Narayana College Kumarakon, related to National Science Day celebrations.



INTER DEPARTMENTAL COMPETITIONS

- ➤ Steni Elizabeth Abraham and Thaslima Ashruf had won 1st prize for the quiz competition conducted by the department of Sociology
- ➤ Aleena Joy had secured 2nd prize for the Elocution Competition conducted by the department of Commerce
- ➤ Anjali Anil and Sreelakshmi G secured 2nd prize for the surprise competition conducted by the sociology department.
- ➤ Kavya Priya B had secured 1st prize for the Pencil Drawing Competition conducted by the department of Commerce
- ➤ Shilpa Thomas has secured 3rd prize and Kavya Priya B has got a consolation prize for the Christmas Card Making Competition conducted by the Dept. of Economics.
- Aswathy Vijay secured second prize for the Science fiction short story competition organized by dept of Physics.



ARTS FESTIVAL

This year a strong team had participated actively in the Arts Fest Celebration conducted on 5^{th} and 6^{th} of February. Our students had managed to bag out many prizes. Following are the prizes

- 1. Kavya Priya B had secured $1^{\rm st}$ prize for Kuchichipudi and $2^{\rm nd}$ prize for both Bharatnatyam and Folk Dance
- 2. Aleena Joy secured 3rd prize for Kathaprasangam
- 3. Abhirami Vinod had secured 2nd prize for Light Music
- 4. Reshmi Suresh and Arya A bagged 2nd prize for Split Dance
- 5. The students secured 3rd prize for Group Dance
- 6. The students secure 2nd prize for Thiruvathira











COLLEGE UNION

Ms. Thankam Reji of II DC Physics is elected as the II DC representative for the year 2015-16.



Teachers' Achievements

DR. MARYKUTTY THOMAS

Publication: Dr. Marykutty Thomas published a research article in the International Journal "Applied Surface Science" 367(2016) 43-51, titled 'Surface-defect induced modifications in the optical properties of α –MnO2 nanorods.

Achievements: Research scholar Mrs. Pournami P Vijayan, under the guidance of Dr. Marykutty Thomas is awarded PhD degree from MG University on Feb 22nd 2016.

Dr. Marykutty Thomas also finished the minor research project titled Characterization Of One Dimensional Gallium Nitride Nanostructures



PROF. SMITHA JOSEPH



Prof. Smitha Joseph started her FDP from December 1st 2015, under the guidance of Dr. K.V Savan on the topic MAGNETO RESISTANCE.

Prof. Smitha Joseph also finished her minor project on the topic Synthesis And Characterization of Rare Earth Magneto Resistant materials.

DR. ELIZABETH V. JOHN

Took a seminar on Energy Conservation, during the NSS camp held at Venmani-Pattyakudi Colany, Idukki on 26th Aug 2015, as an extension activity of 2 day UGC Sponsored Seminar on Energy Conservation, Waste Management, and Organic Farming

Attended workshop on ERASMUS+, JEAN MONNET AND MARIE CURIE ACTION at IIT Madras on 30th October 2015.

Attended two day workshop on MatLab and LabView at St. Stephens College Uzhavoor during Nov 26-27th 2015.

Attended one day seminar for walk with a Scholar Internal Mentors organized at BCM College Kottayam on January 26th 2016.



FAREWELL TO

Dr. Marykutty Thomas, HOD & Associate Professor, Dept. of Physics



Dr. Marykutty Thomas joined department of Physics, BCM College as a fresh post graduate with second rank (Kerala University) from SB College in 1982. She was the thirteenth teacher appointed to the department. Her hard work and passion for subject helped her to take her PhD in Nanotechnology from Mahatma Gandhi University in 2005 under the guidance of Dr. K. C. George. Madam is a PhD guide in Mahatma Gandhi University from 2010 onwards. Dr. Marykutty Thomas added a feather to her hat as Mrs. Pournami P Vijayan received her PhD from MG University on February 22nd 2016 under her guidance. Madam is also guiding Mrs. Reenu Elizabeth John who is finishing her PhD. soon. Madam has around nine articles published in National and International scientific journals of high impact factor. Dr. Marykutty Thomas was also the head of the department from 2007. Madam was the first to organize a UGC sponsored seminar in BCM College.

Dr. Marykutty Thomas is the wife of Dr. Sebastian Aikara, hailing from Kottayam. She is blessed with two children and two grand children. Madam's retirement will be a great loss to the Physics department. We wish you all success and joy with good health with your family.





Mrs. Ancy Philip joined BCM College on Oct 16th 1982 as Office staff. She was promoted as Chemistry lab assistant and transferred to St. Stephens College Uzhavoor in 1994. After four years Mrs. Ancy was again transferred to BCM College. She served as Botany lab assistant for 10 years and then appointed as lab assistant to Physics. Mrs Ancy Philip was always keen in studying new equipments and experiments and was always a strong support the teaching staff and great help to the students. Now she has 33 and half years of service.

Mrs. Ancy Philip is the wife of Mr. Jose P.M., Parachudalayil House, Kothanalloor. She has three children and one grandchild. We wish good health and beautiful days with family.



Association report and the hand written magazine submitted on 01.03.2016.

Dr. Elizabeth V. John

Teacher in-charge