# SAGITTAR



PHYSICS ASSOCIATION REPORT 2017-2018

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It gives me great pleasure to present the report on the activities of physics association SAGITTAR for the academic year 2017 2018.

Alphonleporge

Alphonsa George

#### **"SAGITTAR "**

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The aim of the Physics Association, SAGITTAR, is to enable the students to have a sense of unity and understanding among themselves and the surrounding community. Apart from imparting subject knowledge, the Association aims to improve the character of the students with good civic sense, compassion and empathy to the poor and the sick. It also aims to mould the students to full-fledged persons - physically, mentally and spiritually.

We are really proud to say that we have sincerely tried to exploit all the resources at our disposal for the success of the Association. We are grateful to all the faculty members and the students of the Physics Association for their wholehearted cooperation for making the programs memorable.

The Annual Report of the Physics Association, SAGITTAR, for the year 2017-18 is submitted herewith.

# OFFICE BEARERS



OUR BACKBONE ....

#### **An Overview**

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I.1 A+ HOLDERS

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Physics Association Report | 1827-28

# ACADEMIC PERFORMANCE

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#### I.1 A+ HOLDERS

2016-17 was an year of excellence. Our students have come out with flying colours in their academic performance. It is with immense joy and pride that we introduce our four students who secured  $A^+$ , out of the 30n students who appeared for the final year BSc examination conducted by Mahatma Gandhi University. Below are the names of the students who secured  $A^+$ .

- Caroline Elsa Luke (9.51)
- Ashamol C. S. (9.43)
- Arya A (9.13)

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Krupa Elsa Varghese (9.09).









#### **I.2 SEMINAR/WORKSHOPS CONDUCTED**

#### Science Academies' Lecture workshop on Magnetism

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Science Academies' Lecture workshop on Magnetism will be organised from 20<sup>th</sup> to 21<sup>st</sup> February, 2018, with a view to make the students gain in-depth knowledge on magnetism. The Lecture Workshop is sponsored and supported by the three National Science Academies namely The Indian Academy of Sciences (Bengaluru), Indian National Science Academy (New Delhi) and The National Academy of Sciences (Allahabad).

Prof. G. Baskaran, SERB Distinguished Fellow, The Institute of Mathematical Sciences, Chennai, is the Convenor of the Lecture workshop. He will give two talks on the topic "Relativistic and quantum mechanical origin of magnetism in solids". Dr. R. Ganesh, Assistant Professor, The Institute of Mathematical Sciences, Chennai, will handle two sessions on "Classical and Quantum dynamics of magnets". Two sessions on "Phenomenology of magnetism and some key experiments" will be taken by Prof. P. N. Santhosh, Associate Professor, IIT Madras and Dr. Amal Medhi, IISER, Trivandrum will handle two sections on Magnetic phases and cooperative phase transitions.

This seminar is for UG and PG Physics students, research scholars and teachers. This will give a broad insight into the phenomena of magnetism, magnetic materials, and experimental setup for magnetic measurements. We expect more than 100 participants from different colleges in and around Kottayam.

# ABOUT THE WORKSHOP

The Department of Physics, BCM College Kottayam is organizing a two day Lecture Workshop on Magnetism for Post graduate students and teachers from 20/02/2018 to 21/02/2018 at Sr. Savio Hall, BCM College, Kottayam, with a view to make the students gain in-depth knowledge on magnetism. All are welcome.

#### REGISTERATION

- No registration fee
- PG students, research scholars and teachers can attend this workshop
- Lunch and refreshments will be provided to all the participants

#### CONVENOR

Prof. G. Baskaran SERB Distinguished Fellow The Institute of Mathematical Sciences CIT Campus, Tharamani, Chennai 600 113 Tamilnadu

#### LOCAL COORDINATOR

Dr. Elizabeth V. John Assistant Provenor Department of Physics BCM College, Kottavam Mob: 7558897015 E-mail: elizjo@gmail.com

## Science Academies' Lecture Workshop on Magnetism

20th- 21st February 2018

**Organised by** 

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Department of Physics BCM College, Kottayam

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#### **RESOURCE PERSONS**

#### Prof. G. Baskaran

SERB Distinguished Fellow The Institute of Mathematical Sciences CIT Campus, Tharamani, Chennai 6000 113 Tamilnadu

#### Prof P. N. Santhosh

Associate Professor, Department of Physics IIT Madras, Tamilnadu

#### Dr R. Ganesh

Assistant Professor, The Institute of Mathematical Sciences Chennai 600 113, Tamilnadu

#### **Dr Amal Medhi**

Assistant Professor, Department of Physics IISER, Trivandrum, Kerala.

#### Day I: Feb 20th, 2018

 Inaguration
 Lecture- I Prof G. Baskaran:
 Relativistic and quantum mechanical origin of magnetism in Solids-I
 Lecture-II Prof P. N. Santhosh
 Phenomenology of magnetism and some key experiments -I
 Lecture -III Prof G. Baskaran
 Relativistic and quantum mechanical origin of magnetism in Solids-II
 Lecture -IV Dr R. Ganesh
 Classical and quantum dynamics of magnets- I

#### Day II: Feb 21<sup>st</sup>, 2018 > Lecture –V Prof P. N. Santhosh

Phenomenology of magnetism and some key experiments –II
 Lecture- VI Dr Amal Medhi
 Magnetic phases and cooperative phase transitions-I
 Lecture –VII Dr R. Ganesh
 Classical and quantum dynamics of magnets- II
 Lecture- VIII Dr Amal Medhi
 Magnetic phases and cooperative phase transitions-II

# SCIENCE ACADEMIES' LECTURE WORKSHOP ON MAGNETISM

20<sup>th</sup>- 21<sup>st</sup> February 2018

Organized Jointly by



Indian Academy of Science Bangalore



Indian National Science Academy New Delhi



The National Academy of Sciences India Allahabad

Hosted by



Post Graduate and Research Department of Physics BCM College, Kottayam, Kerala



This is to certify that

has been a participant of the Science Academy

Science Academies' Lecture Workshop on Magnetism

held at BCM College, Kottayam during 20<sup>th</sup>-21<sup>st</sup> February 2018.

Dr. Elizabeth V. John COURSE COORDINATOR Department of Physics BCM College, Kottayam, Kerala Prof. G. Baskaran COURSE CONVENOR SERB Distinguished Fellow The Institute of Mathematical Sciences Chennal, Taminadu

# SCIENCE ACADEMIES' EDUCATION PROGRAMME

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JOINT SCIENCE EDUCATION PANEL

Indian Academy of Sciences Sebastian, K L (Chairman) Arunan, E Bachhawet, A. K. Balekrishnan, V Chattopadhyay, Nitin Dhar, Deepak Mukunda, N Murthy MRN Radhakrishnan, T. P. Rangarajan, Govindan Saidapur, S.K. Sankaran, P. Satheesh, S.K. Sengupta, Pulak Subramaniam, Annapumi

Indian National Science Academy Chattaraj, P K. Chattoo, B.B. Chaudhuri, Probal Goswarni, J N.

The National Academy of Sciences, India Dimri, V.P. Khurana, Paramjit Misra, Gadadhar Mittal, J.P.

Contact Address

Mahabaleswara, T.D. Coordinator Refresher Courses & Lecture Workshops Indian Academy of Sciences P.B. No. 8005 C.V. Raman Avenue Sadashivanagar P.O. Bengaluru 560 080 India

P1-80-2266 1210 91-80-2266 1222 91-80-2266 1222 Fax 91-60-2361 6084 Dr Elizabeth V. John Asst. Professor Dept. of Physics BCM College Kottayam 686 001

Sub: Lecture Workshop on "Magnetism" at BCM College, Kottayam during 20-21 February 2018.

Dear Dr Elizabeth V. John,

This has reference to the letter forwarding a proposal and budget for organizing a twoday Lecture Workshop at BCM College, Kottayam. The Joint Science Education Panel of the three Academies will be happy to sponsor and support the Lecture Workshop. We note that Prof. G. Baskaran (IMSc, Chennai) will be the Convener and you will be the Coordinator.

(a)Your budget of Rs.1,03,000/-(+11 A/C Train fare of Resource Persons) for 100 participants has been approved by the Science Education Panel. As per the guidelines, the ideal number of participants in a Lecture Workshop should be between 100 and 125 again in any case should not exceed 150, to maximize interaction between participants and resource persons. Please note that you have to adhere to our guidelines and the approved amount is strictly following the budget heads in the guideline.

(b) Please note that only the names of Convener and Coordinator of the Workshop should be included in brochure/ invitation etc. Names of members of the management, organizing committees, patrons etc should strictly be not printed.

(c) Please ensure that the expenditure on individual items does not exceed the sanctioned BUDGET HEAD. If the actual expenditure exceeds the sanctioned budget, THE HOST INSTITUTION MUST TAKE CARE O: FHE DIFFERENCE.

(d) Lecture Workshops are sponsored and supported by the three National Science Academies – IASc, INSA and NASI. The names of INDIAN ACADEMY OF SCIENCES (BENGALURU), INDIAN NATIONAL SCIENCE ACADEMY (NEW DELHI) and THE NATIONAL ACADEMY OF SCIENCES, INDIA (ALLAHABAD) along with logos hould therefore be mentioned in all publicity material such as programme sheet, invitation car 4s, etc.

(e) It may be noted that no formal certificates should be issued to participants. A letter of attendance signed by Coordinator may be issued to those who insist on it.

(f) The Workshop should be called Science Academies' Lecture Workshop on "Magnetism".

(g) You should send us three copies of the printed programme cards once it is printed.

(h) We can transfer the amount through electronic transfer on receiving a specific request from you.

We urge you to open a new bank account in the name of the lecture workshop or in the name of the principal and provide full details of the account:

- I. Account No;
- 2. Name of the Account Holder;
- 3. Name of the Bank;
- 4. Name of the Branch;
- 5. IFS code for non-SBI accounts.

Alternatively you can provide us the existing college bank account number to which we can transfer the amount.

(i) The audited expenditure statement/utilization certificate duly signed by competent authority (CA or Financial Controller) should be sent along with the report, once the Course is over. This is required for the audit compliance.

You can go ahead with organizing the Workshop in consultation with Prof. G.Baskaran and keep us informed about the progress.

With regards,

Yours sincerely,

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C.S. Ravi Kumar Coordinator Science Education Panel

P.S. Antare Lo Lite Converse Prob Baskeron Will be have by the Acedany you may book and kind vs the bill.

#### 1.3 DAYS OBSERVED

#### Madame Curie Day Celebration

As an honour to Madame Curie, the woman who won the nobel prize twice in two different sciences, the physics association celebrated Madame Curie day on 5<sup>th</sup> July 2017 in collaboration with Break Through Science Society. A documentary was presented on the day which helped the students to go through her personal, emotional and scientific life. Her life is a great inspiration to the young women to build a successful scientific career. It helped our students to know more about the Iron lady Madam Curie who stood firmly for Sciences against all discriminations.



#### Christmas Celebration

The birth of Lord Jesus was celebrated by the Physics Association "SAGITTAR" on 22nd December 2017 with it's true spirit. Our students spread the message of peace and harmony through various cultural activities. The creativity of our students was seen in the crib arranged in our department. The Christmas cake was distributed to the students so that the sweetness of the cake will always remain in all ventures of their life.







#### Teacher's Day

On 11<sup>th</sup> September 2017, the day dedicated to our dear loving teachers who play a prominent role in our life. Our teachers, our guide for life, show the path towards success. Their contribution is the backbone of our success. They enrich our personality by imparting ethical and academic knowledge. It was with great pride that we the students conducted the teacher's day celebrations which was a tribute to our loving teachers.





#### **Onam Celebration**

Onam, the festival of harvest was celebrated in its traditional way on 31<sup>st</sup> August 2017. The rhythm of the onam songs took all the members of SAGITTAR to the past days where Mahabali ruled with atmost sincerity. All the members of Physics family enjoyed onapayasam. We also participated the pookalam competition organised in the college. All the teachers and students were in traditional Kerala dress and made the occasion a memorable one.



#### **I.4 EXHIBITIONS CONDUCTED**

#### **Photo Exhibition**

Albert Einstein, The Scientist of an Era, His theory of relativity is considered as one of the two pillars of modern physics alongside quantum mechanics. To familiarize this great scientist, a photo exhibition on the life and work of Albert Einstein was organized on 9th November 2017 in association with the Breakthrough Science Society. Principal Dr. Sr. Betsy inaugurated the exhibition. The exhibition was open for **public and students** of various departments and nearby schools, which was a novel experience for them. As the exhibition was highly informative, it was appreciated by all.







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#### Conservation of Energy - Chart exhibition

Energy conservation is the need of the hour. To draw the attention of college students into this social issue, a chart exhibition was conducted in front of the college auditorium on 8th August 2017. To draw attention to this college awareness programme, a flash mob was conducted by the students of Physics department on conservation of energy.



#### Guruvandanam

On 26th January 2018 we were blessed to conducted a special program to honour all our teachers who retired from our department. They enlightened our students with the ways to succeed in life. Their experienced life was a great inspiration for the upcoming young stars. Our principal Dr. Sr. Betsy presided over the function. Six retired teachers graced the occasion with their presence. The retired teachers shared their sweet memories and imparted valuable advices. All the six teachers together presented a surprise "Kadha Prasangam" which was enjoyed by all. Moreover their positive attitude filled with energy was a motivation to all. It was a day filled with pride for us. The valuable words that poured from their hearts touched each one of us.



### I.5 PERSONALITY DEVELOPMENT/ STUDENT EMPOWERMENT PROGRAMMES

#### Workshop on power consumption and measurement of electric power

An academic and community awareness tie up programme was held on October 28<sup>th</sup> 2017.It was a workshop conducted by the officials from KSEB about the concept of power consumption and measurement of electric power to make our students aware about the units of current that we consume. Our students were empowered by their talk.





#### Interaction With Alumni- Student Empowerment Programme

- 1. On 5th December 2017 we had an interaction section with our alumni Ms Aswathy Vijayan (got JRF in June 2017) and Asha Ann, who had meritorious achievements. They explained us how to appear for various entrance examinations and also shared their experiences. This motivated us to go ahead in academic line.
- The students got opportunity to interact with our alumni members Ashamol C.
  S. and Indhulakshmi P. They explained the role of NCC and NSS in the character formation of the students.



#### A Talk on "Role of Physics students in the field of Power generation"

An informative talk was given by Mr. Kurian Sebastian on the topic 'Role of physics students in the field of power generation' on 26<sup>th</sup> of July 2017. He also discussed about different types of power plants such as

- · Hydroelectric power plants
- Nuclear power plants
- · Thermal power plants
- · Solar and Wind power generators.



## Personality Development Programme

Geetha Jose, Post graduate in management studies, presented a talk on personality development on 16<sup>th</sup> January 2018. The following were the topics of discussion.

- Preparation of CV
- How to face an interview
- Importance of communication skill
- Advantage of science back ground



#### Project competition for III DC students

This year we conducted Project Competition for 3<sup>rd</sup> year students. This was a novel idea which enhanced the confidence of the students, as they presented their project using ppts. There was a detailed discussion on each topic during the presentation. It will help the students to present the project with confidence in the ensuing University examinations. Ms. Anju Sajan and team who presented on the topic UV Spectra of paracetamol won the first position and second position was won by Ms. Sreelekshmi G and team who did on comparative study of UV spectra of different coffee.



#### Tour To Belur, Koorg and Chikmagalur

Along with Prof. N Susy Philip and Dr. Elizabeth V John, the final year students visited Beloor, Koorg and Chikmagalur from 12th December to 16th December 2017. The students had wonderful and unforgettable moments during the river rafting at Koorg and adventurous water park at Beloor. The tour was enjoyed by all and it was a memorable one for them.





#### **I.6 MANUSCRIPT MAGAZINE**

To promote the talents of the Physics students, the Association released a manuscript. About 80% of our students contributed towards this. The hand-written magazine, CRESENSE was released by Dr. Tina Anna Thomas, HOD, Department of English by handing over the same to Prof. Susy Philip on 16<sup>th</sup> Feb 2018. One the same day, the valedictory function was conducted. All our teachers, non-teaching staff and the students were present.



Submitted Very Good

#### **I.7 INTERCOLLEGIATE COMPETITIONS/ FEST CONDUCTED**

#### **Power Quiz Competition**

#### **District Level Power Quiz Competition**

The district level power quiz competition was conducted by KSEB in association with Physics department on 16<sup>th</sup> November 2017. 17 teams from various college from Kottayam district participated in the same. The team from DB College Thalayolaparamb won the first prize. Prof. Susy Philip N., HOD Physics Department handed over the prizes.



#### Zonal Level Power Quiz Competition

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The Zonal level power quiz competition was conducted by KSEB in association with Physics department on 17<sup>th</sup> Jan 2018. District level power quiz winners from Kottayam, Pathnamthitta and Idukki district participated in this competition.





#### National Science Day Celebration

National Science Day celebrations, sponsored by Kerala State Council for Science Technology and Environment, Trivandrum and supported by Department of Science and Technology, Govt. Of India was conducted on 2nd February 2018 to popularize science among students. We received this support from KSCSTE, TVM for the third consecutive time for NSD celebrations. As a part of this, the following inter-collegiste competitions were held.

#### 1. PENCIL DRAWING COMPETION

An inter-collegiate pencil drawing competition on the topic 'The scientific invention that influenced me the most' was conducted and students from various colleges participated in it. Nidhin Vinod of KG College Pampady and Akhil Issac of CMS College Kottayam secured first and second positions respectively.

2. QUIZ

As a part of NSD 2K18 the first event organised was the quiz competition. 16 teams from various colleges participated in it. Prof. Augustine J Edakara, Assistant Professor, St. Thomas College Pala was the quiz master. The first preliminary round was conducted and five teams were selected for the final round. The PG and UG teams from SB College Chenganaserry on first and second prizes respectively.



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# **Kerala State Council for Science, Technology and Environment**

Dr. Anilkumar C Principal Scientist and Head Science Education Division

12-02-2018

No.C-10 /NSD/2018/KSCSTE

Sir/Madam.

Sub:- KSCSTE - National Science Day 2018- Celebrations - reg. Ref:- File No. KSCSTE/5231/2017/NSD

With reference to your proposal, I am happy to inform that KSCSTE has approved to offer financial assistance of ₹15000/-for organizing the National Science Day (NSD) 2018 celebrations, subject to the following conditions

- 1.Programme schedule should be sent to KSCSTE well in advance.
- 2. Activities should be based on the focal theme: "Science and Technology for sustainable future " Eminent speakers/ experts may be invited to handle the sessions organized in connection with the programme.
- 3. Though February 28 is observed as National Science Day, the activities in your institution may be organized on any convenient date in the month of February, but on or before February 28, 2018. The activities organized after February 28. 2018 will not be considered for financial assistance.
- 4. Each activity should be documented. Detailed report on the various activities organized in connection with NSD
- \* 2018 along with captioned photographs should be submitted to KSCSTE
- 5. KSCSTE should be duly acknowledged in the programme and it should be written in all the brochures, banners, publicity materials, etc. "Sponsored by Kerala State Council for Science, Technology and Environment" and supported by 'Department of Science & Technology, Govt. of India'
- 6. The financial assistance may be utilized to cover the expenditure on organizing expenses, publicity materials, travel expenses, honoraria for resource persons and refreshment. Utilization of the grant for any other purpose other than the approved heads shall not be entertained.
- 7. On successful completion of the programme, the Head of the Institution should forward the following documents to The Director, KSCSTE - Final report on the organized programme including necessary photographs, official bank account details of Head of the Institution, audited Statement of Expenditure and Utilization Certificate in the standard format available in the KSCSTE website. Also send soft copy for all
- 8. The financial assistance will be disbursed to the Head of the Institution, only after the successful conduct of the programme, subject to the submission of satisfactory report and financial statements.
- 9. The required documents mentioned above should reach this office as early as possible after the conduct of the programme. However, the documents received after April 30, 2018will not be entertained for release of payment and such request will be summarily rejected.

Kindly refer the Letter No and File No. in all future correspondence. Name of the Programme Co-ordinator:Dr.Elizabeth V John

Thanking you.

Yours sincerely

Anilkumar (

The Principal, Bishop Chulaparambil (BCM) College, K K road, Kottayam 686001

Dr.Elizabeth V John, Assistant Professor, Physics, Bishop Chulaparambil (BCM) College, K K road, Kottayam 686001

Sasthra Bhavan, Pattom P.O., Thiruvananthapuram - 695 004, Kerala State, India Tel : 0471 - 2548200-09, EVP - 2543557, 2548222, MS - 2534605, 2548220, CoA - 2543556, 2548248 Fax : 0471 - 2540085, 2534605 e-mail : kscste@gmail.com, www.kscste.kerala.gov.in



## BCM COLLEGE KOTTAYAM in association with KERALA STATE COUNCIL FOR SCIENCE, TECHNOLOGY AND ENVIRONMENT, TRIVANDRUM

Celebrates

National Science Day On 2nd February, 2018

Venue College Auditorium, BCM College Kottayam

Organized by Dept. of Physics, BCM College Kottayam Sponsored by KSCSTE, TVM




## Intercollegiate Physics fest SAGITTARIA 2K18

For the first time in the history of Physics department, we organized a two day Physics Fest, "SATITTARIA 2K18" during 2<sup>nd</sup> and 3<sup>rd</sup> February 2018. Students from more than 20 colleges participated in the fest. The first day events were fully related to Physics to bring out new inventions from the mind of youth that could change the image of science.

Second day was full of cultural events that include Split dance, Group dance, Duet song and Treasure hunt. These two days made science and arts come together as how Einstein wished to happen.

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#### 1. ESSAY COMPETITION

An inter-collegiate essay competition was conducted on the topic 'Graphene-Influencing Future'. Among the entries, five essays were selected for oral presentation. The competition was judged based on the writing and presentation skills of the participants. Mareeta Joseph of Assumption College Changanassery and Catherine George of Marthoma College Thiruvalla won first and second positions respectively.

#### 2. PRESENTATION

Next event was a presentation competition named 'CONFERAL'. 7 teams from various colleges participated. Team from St. Thomas College Palai won first prize and second prize was won by SB College Changanassery

#### 3. GROUP DANCE

One of the attractive events of our fest was the group dance named 'FUSSIA'. 3 teams participated .The teams from Assumption College, Changanassery and St.Thomas, Pala won the first and second positions respectively.

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PRESENTS

## SAGITTARIA INTERCOLLEGIATE PHYSICS FEST

2-3 February, 2018





#### 4. SPLIT DANCE

Another attraction of our fest was the split dance named FISSIA.3 teams participated in the event. Teams from St. Joseph College Changanacherry and St. Thomas College, Pala secured first and second positions respectively.

#### 5. DUET

Next event of our fest was duet song competition named YUGMA. 9 teams participated in the competition. Assumption College Changanacherry and Government College Nattakam won first and second positions respectively.





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## 1.8 INTERDEPARTMENTAL COMPETITIONS

## Inter Department Physics Quiz Competition

On 6th July 2017, an inter department physics quiz competition was conducted. Aleenamol Mathew and Josmy Joseph Of III D.C chemistry department secured the first position.



#### Game Session

On 21st December a game session for the whole college was conducted in front of the college auditorium. The game session consists of four rounds. It was appreciated by the faculty members and students of our college, since it was a day filled with joy and fun for all.











#### **Power Quiz Competition**

Interdepartmental Power quiz competition was conducted in association with KSEB, on 25<sup>th</sup> October 2017, for which was a very informative one. Students from various departments participated in the programme. Ardra Dhananjayan and Christy Philip won first and second prizes respectively.





## **1.9 SUBJECT ENRICHMENT PROGRAMMES**

## Industrial Visit To VSSC Thumpa, Trivandrum

On 23rd August 2017 all students and faculty members of Physics department visited Vikram Sarabhai Space Centre Thumpa, Trivandrum. It was a wonderful academic experience. It lighted a path to the fascinating world of stars and planets. We got an opportunity to attend a documentary presentation on satellites launched by India and their launching techniques. On the same day we enjoyed our evening at Kochuveli and Shanghumugham beach. We also had fun at an adventurous park near Kochuveli.



## IMPORTANT INSTRUCTIONS

Visitors holding valid entry pass only will be allowed inside Space Museum. Entry passes can be obtained on request from Administrative Officer, Public Relations, VSSC. Request should contain information like visitors' name, age, address, occupation etc. Requests for passes may be sent well in advance directly by ordinary post or Speed post. There is **NO ENTRY FEE** to visit VSSC Space Museum.

Visitors of Foreign Nations should obtain the Special entry permit directly from Public Relations, subject to the approval of the Director, VSSC.

Space Museum visitors are requested to enter / exit through Canal Gate near Stationkadavu only. Limited number of vehicles may be allowed up to Space Museum. Mobile phones, Cameras, CDs, Floppies or other Electronic Gadgets etc, are strictly prohibited inside the campus.

A visit to Space Museum will take more than one hour. Entry will be allowed from 09:30 hrs to 15:30 hrs on all VSSC working days and Saturdays. There will be regular film shows on all days. Special shows will be arranged for groups with not less than 40 visitors, if required.

VSSC will not be responsible for any loss / damage or accident to the visitors during their visit to VSSC or to any of its facilities or while launching of rockets. For further details and entry passes, please contact :

Administrative Officer, Public Relations, VSSC, ISRO P.O Thiruvananthapuram 695 022 
 Telephone Numbers

 Public Relations
 : 0471-2564292, 2565649

 Space Museum
 : 0471-2562275, 2562717

 Fax
 : 0471-2564060

Government of India Department of Space Vikram Sarabhai Space Centre Thiruvananthapuram - 695 022 C SPACE MUSEUM / WITNESSING ROCKET LAUNCH (Entry through Canal Gate) 23-08-2017 170855 Pass No. Date: Mr. Binto Binoy Name BCM COLLEGE KOTTAYAM, KOTTAYAM Address KOTTAYAM, KOTTAYAM Kerala 686001 102 No. of Persons KL26B2001 & KL30E6446 Vehicle No if any 23-08-2017 9:30 AM Date of visit This is a system generated entry pass. Valid with out signature of the approving authority. Holder's signature Administrative Officer (Seal) **Public Relations** Can be retained by the visitor Visitors pass

Timing: 09.30 Hrs to 15.30 Hrs



#### Talk On Gravitational Waves in association with Breakthrough Science Society.

Dr. C. S. Menon, former director, Pure and Applied Physics, M.G. University, delivered a talk on gravitational waves on 4th September 2017. The talk was conducted after the declaration of Nobel Prize 2017 for Physics, for the discovery of gravity waves. Hence the topic was of much relevance. The programme was conducted by the department of Physics in association with Breakthrough Science Society. It was very informative especially for the third year B.Sc. students since it was a topic in their syllabus.



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#### **Talk On Nuclear Power Stations**

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On 15th January 2018 III DC students attended a talk on nuclear power stations at Basalious College Kottayam by Dr. A. V. Satheesh, scientific officer of Koodamkulam power station. The class was very informative.





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Department of Physics BASELIUS COLLEGE

Kottayam - 686 001, Kerala, INDIA 91-9446819214, Fax: 91-481-2565958 E-mail: <u>sindu.jones@gmail.com</u>

Dr. Sindu Jones Head of the Department

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that the final year degree students of the Physics department of B.C.M college had come to participate in the workshop lead by Dr. A. V Satish, scientific officer, KKNPP on "Nuclear Power- The need, the perception and realities" conducted by the department of Physics on 15/01/2018 at Baselius College, Kottayam.

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Dr. Sindu Jones



## Talk On Conservation of Electricity and Its Safety Measures

A talk on conservation of electricity and its safety measures was conducted on 25th July 2017 by Sri. Binu B, Assistant Engineer of KSEB Kottayam section. The talk was very valuable since it was very helpful in changing our perspective about energy conservation. He pointed out the fact that energy conservation must start from our home. A CFL was given to all the students and faculty members of department of Physics by KSEB Kottayam section.

## Inauguration of Project for I D.C for Community Awareness

On 25th July 2017 Department of Physics in association with KSEB started the project for the first year Physics students on energy conservation and community awareness. This was inaugurated by Sri. Kurian Sebastian, Assistant Executive Engineer of KSEB Kottayam section.



#### Lunar Eclipse

In association with Breakthrough Science Society, a Lunar Eclipse watching programme was conducted for the public and students on 31st January 2018 from 6 pm to 8 pm at Erayilkadavu bridge, Kottayam. It was a thrilling experience to watch the blue moon, super moon and red moon at the same time, which will occur only once in 150 years. During the sky watching programme, Prof. P. N. Thankachan, Secretary of Breakthrough Science Society, delivered a detailed and informative talk on stars and their movements. Students and the public got an opportunity to watch sky and stars with high resolution telescopes. About 900 people / students utilized the facility.





## ചന്ദ്രഗ്രഹണം കാണാൻ ഒരുക്കങ്ങളായി

#### മലരിക്കലിൽ ചന്ദ്രോൽസവം

കുമരകം ● കാഞ്ഞിരം മലരി കലിര് ഇന്ന് ചന്ദ്രോൽസവം. വിനോദസഞ്ചാര കേന്ദ്രമായ ഇവിടെ സഞ്ചാരികൾക്കും നാ ട്ടുകാർക്കും പൂർണ ചന്ദ്രഗ്രഹ ണം കാണാൻ സൗകര്യമൊരു ക്രിയാണ് ചന്ദ്രോൽസവം സം ഘടിപ്പിച്ചിരിക്കുന്നത്. വൈകിട്ട് 5.30 മുതൽ ചന്ദ്രോൽസവം തുടങ്ങും. മീനച്ചിലാർ-മീനന്ത റയാർ-കൊടുരാർ പുനർസം യോജന പദ്ധതിയുടെ ഭാഗമാ യാണിത്.

1200 ഏക്കറുള്ള ജെ. ബ്ലോക് ഒൻ പതിനായിരം പാടശേഖരത്തി ന്റെ കിഴക്കേ ബണ്ടിൽ നിന്നാൽ പൂർണ ചന്ദ്രഗ്രഹണം കാണാൻ കഴിയും. ചന്ദ്രഗ്രഹണം കാണാർ നത്തുന്നവർക്ക് ഇരിക്കുന്നതി നായി ഏറുമാടങ്ങളും മുളകൊ ണ്ടുള്ള ബഞ്ചുകളും സജ്ജമാ കിയിട്ടുണ്ട്. സംഗീത വിരുന്നും

നടക്കും. ചന്ദ്രോൽസവത്തിന്റെ ഭാഗമായ സമ്മേളനത്തിൽ രാ ഷ്ട്രപതിയുടെ വിശിഷ്ട സേവ പുരസ്കാരം നേടിയ ഫയർ ഫോഴ്സ് ഉദ്യോഗസ്ഥൻ കെ .സുരേഷ്, ഓക്സ്ഫഡ് യൂനി വേഴ്സിറ്റിയിൽനിന്ന് നെറ്റ് വർക് സെക്യൂരിറ്റിയിൽ ഡോക്ടറേ റ്റ് നേടിയ ശരത് പി.ഷിബു, ദേശീയ കരാട്ടേ ചാംപൃൻഷി പ്പിൽ വെങ്കലം നേടിയ ആർ.ആ ശ്വിൻ കൃഷ്ണൻ എന്നിവരെ ആർ.കെ.മേനോൻ സാംസ്കാ രിക സമിതി അനുമോദിക്കും. മലരിക്കൽ ടൂറിസം സംഘാടക സമിതിയുടെ നേതൃത്വത്തിലാ ണു ചന്ദ്രോൽസവം നടക്കുന്ന ത്. ടൂറിസം വികസനത്തിന്റെ ഭാഗമായി രണ്ടുകോടി രൂപ ചെലവഴിച്ചു മലരിക്കലേക്കു ള്ള റോഡ് വികസനം നടത്താ നും നടപടിയായിട്ടുണ്ട്. മലരി ക്കൽ ടൂറിസത്തിന്റെ ഭാഗമായി വയലോര-കായലോര ഫെസ്റ്റ് സംഘടിപ്പിച്ചിരുന്നു. പാതിരാമ ണൽ, മീനച്ചിലാർ, പഴുക്കാനി

ലം കായൽ എന്നിവിടങ്ങളിലേ ക്ക് ഇവിടെ നിന്നു ദിവസവും ജലയാത്രയും സംഘടിപ്പിച്ചിട്ടു ണ്ട്. മീനച്ചിലാർ-മീനന്തറയാർ-കൊടൂരാർ പുനർസംയോജന പദ്ധതി കോഓർഡിനേറ്റർ കെ .അനിൽകുമാർ ചന്ദ്രോൽസവ ത്തിനു നേതൃത്വം നൽകും.

#### നിരീക്ഷിക്കാം കോട്ടയത്ത്

കോട്ടയം നോട്ടകം ഗവ കോ ളജ്, ബിസിഎം, സിഎംഎസ്, ബസേലിയസ്, മണർകാട് സെന്റ് മേരീസ് കോളജുകളിലെ ഭൗതിക ശാസ്ത്ര ഡിപ്പാർട്മെ ന്റുകളും ബ്രേക്ത്രൂ സയൻസ് സൊസൈറ്റിയും ചേർന്ന് ഇന്നു ചന്ദ്രഗ്രഹണ നിരീക്ഷണം സം ഘടിപ്പിക്കും. പൊതുജനങ്ങൾ ക്കുംപങ്കെടുക്കാം ഈരയിൽകട വ് പാലത്തിനു സമീപംവൈകിട്ട് 5.30 മുതൽ 8.30 വരെയാണു പരിപാടി. വി.കെ.സത്യവാൻ നായർ ഉദ്ഘാടനം ചെയ്യം.

#### Subject Enrichment Programme:

Miss Raiza Rebecca Jacob, 1<sup>st</sup> DC Physics, secured an opportunity to participate in a seven day Science Winter Workshop during 28<sup>th</sup> Dec 2017 to 3<sup>rd</sup> Jan 2018, which was a national level programme. She could achieve this by presenting a project on Portable Sound Fire Extinguisher. She was one among 17 students out of 196 students who applied for the programme. The training was imparted by 10 scientists across the globe. The aim of the programme was to develop independent thinking and self study. By attending this programme, which was a practical oriented one, she could enhance a real interest in Physics subject. She shared her experiences with the members of the Physics Association. This motivated the fellow students to participate in similar programmes.



# Winter Science Workshop #1

## A curiosity driven research camp for free-thinkers

## Certificate

Out of 196 applications 17 free-thinkers were selected for the Open Academic Winter Research Camp 2017. They all came up with their own ideas to perform research work with the members of the Open Academic Research. The selection process was only based on the free-thinkers' scientific questions.



This is to certify that AIZA REBECCA TACOB has attended and actively participated in the OAR Winter Science Workshop 2017 from 28th December 2017 to 3rd Jan 2018 at Melur (Koyilandy), Kerala, India.

Siddharth Ghosh Chief Organiser

Abhilash Asok Chief Organiser

Contact us: openacademicresearch@gmail.com Organised by OAR: openacademicresearch.org

#### **II. ARTS COMPETITIONS**

#### **Arts Festival**

We participated in various arts competition in the college. Below is the overview of the various group and individual competitions.

Competition		Participants	Position	
Western group	Group	Richy Thampi IDC	Second	1.5
ong		Riya Therese Abraham III		
		DC		
		Merija K. S. IIIDC		
		Raize Rebecca Jacob IDC		
Thiruvathira	Group	Shilpa Susan Thomas IDC	Third	- 2
		Shamily S. IDC		19
		Harshamol R IDC		
		Sruthy Reji II DC		
		E.V. Parvathy III DC		
		Anjali Anil III DC		
		Sreelakshmi G. III DC		
		Reshma H III DC		
		Abhirami Vinod III DC		
		Karthika K S III DC		
String Instrument	Individual	Richy Thampi IDC	Second	
Light Music	Individual	Harshamol R IDC	First	. 5
Light Music	Individual	Abhirami Vinod IIIDC	Second	
Poster designing	Individual	Donna Susan Abraham II	Third	- 0
		DC		1
Group dance	Group	Shamily S. IDC	Participation	
		Anjali G. II DC		
		Anjali Anil IIIDC		
		Anju Sajan III DC		
		St	had	
		90	1.25	

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		Diya Joji IIIDC		1
		Amrutha Raj IIIDC		
		Alphonsa George IIIDC		
		E. V. Parvathy IIIDC		
Margam Kali	Group	Shilpa Susan Thomas IDC	Participation	
		Ani Archa Raju IDC		
		Christy Philip IDC		015
		Harshamol R IDC		
		Akshara Baby II DC		
		Anjali G. II DC		
		Alphonsa George III DC		
		Abhirami Vinod IIIDC		
		Diya Joji III DC		
		Stebina P. Starlet III DC		
Skit	Group	Nithya George	Participation	
		Anjali G	r	• / 5
		Akshara Baby		
		Feba Ann Thomas		
		Sabitha K. Sabu		
		Donna Susan Abraham II		
		DC		
Eastern group song	Group	Amrutha Raj III DC	Participation	.15
		Sreelakshmi G III DC		-15
		Anumol Chacko III DC		
		Devika R. Nair III DC		
		Gayathri Ganesh III DC		
		Abhirami Vinod III DC		
Photography	Individual		Darticianti	-
Photography		Parvathy Salimkumar IDC	Participation	- 10
Western Music	Individual	Richy Thampi IDC	Participation	. 10.
Solo				

9.0 1.25 1.35 1.45

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Physics Association Report 2017-18

Contraction of the local division of the loc

Light Music	Individual	Vineetha Devadas I DC	Participation
English Recitation	Individual	Richy Thampi IDC	Participation
English Recitation	Individual	Raiza Rebecca Jacob IDC	Participation
Malayalam Recitation	Individual	Jinnu C U IDC	Participation
Malayalam	Individual	Raiza Rebecca Jacob IDC	Participation
Recitation			
Malayalam	Individual	Sreepriya Prasad IIDC	Participation
Recitation			
Malayalam	Individual	Nithya George II DC	Participation
Elocution			
Malayalam Poetry	Individual	Nithya George II DC	Participation
Writing			
Malayalam Story	Individual	Nithya George II DC	Participation
writing			
Malayalam Essay	Individual	Nithya George II DC	Participation
writing			
English Elocution	Individual	Haritha Thomas II DC	Participation
Poster Designing	Individual	Donna Susan Abraham II	Participation
		DC	
Malayalam Story	Individual	Donna Susan Abraham II	Participation
writing		DC	
Painting	Individual	Donna Susan Abraham II	Participation
		DC	
Classical Music	Individual	Deepthi Dilleep II DC	Participation
Light Music	Individual	Deepthi Dilleep II DC	Participation

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#### **Inter Departmental Competitions**

Competition	Participants	Position	
Debate competition, pi day celebrations, Dept. of Mathematics	Adona and Donna of II DC	First	10
Story writing competition, Dept. of Mathematics	Nithya George of II DC	First	
Starmakingcompetition,Computer Science Department.	Sreelakshmi G, Akhila Babu and Thajnu Humayoon, III DC	Second	.50
'Thenga chirandal' competition conducted by NSS unit	Lissy Joseph, Lab assistant	First (Women)	<u>о</u>
'Onampookkalam' competition conducted by college union.	Department of Physics	Third	.25
Christmas tree decoration competition, Department of FACS	Littymol Lukose, Riyamol Thomas and E V Parvathy, III DC	Third	.25
competition,	Alphonsa George, Riya Theresse, Gayathri Ganesh, Merija K S, Anumol Chacko, E. V. Parvathy, Diya Joji, Delma Sunny, Stebina P Starlet of III D C and Feba Ann Thomas, Deepthi Dileep, Akshara Baby, Anjali G		-25
JUVENITUDE 2K17 conducted by Sociology department	Anjali Anil of III DC and Richie Thampi of I DC	Participated	.15
Presentation competition, Computer Science department.	Sreelakshmi G and E V Parvathy III DC	Participated	+15
Freasure hunt competition, Dept of Computer Science.	Diya Joji and Anjali Anil III DC	Participated	*15

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Star Making Competetion I Prize



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## **III. SPORTS ACTIVITIES**

#### **III.1 University Level**

Richie Thampi of I DC Physics is in the College Throw Ball team and they secured fourth position in the MG University Throw Ball Competitions held on Feb 14<sup>th</sup>, 2018.



## III.2 College Level

As part of this years' sports day, students and teachers actively participated in various sports activities as listed below.

Competitions		Participants	Position
Marchpast	Group	I, II & III DC Students	Fifth 54
Badminton Doubles	Group	Dr. Monisha P. J.	First (Teacher)
Badminton Doubles	Group	Dr. Elizabeth V. John	Third (Teacher)
Tug of War	Group	Anjali G. II DC	Participation
		Akshara Baby II DC	
		Jiss Maria Chacko II DC	
		Alpha Joseph II DC	
		Biya Thomas II DC	
		Stebina P. Starlet III DC	
		Roshna N Shad III DC	
		E V Parvathy III DC	
Basketball Throw	Individual	Roshna N Shad III DC	Participation
Basketball Throw	Individual	Jaisy P S III DC	Participation
Penalty shootout	Individual	Stebina P Starlet III DC	Participation
Penalty Shootout	Individual	Roshna N Shad III DC	Participation
Cross country relay	Group	E V Parvathy III DC	Participation
		Stebina P Starlet III DC	
		Anjali Anil III DC	
		Roshna N Shad III DC	
Two Wheeler Slow	Individual	Gayathri Ganesh III DC	Participation
Race			
Two Wheeler Slow	Individual	Reshma H	Participation
ace			
	Individual	Stebina P Starlet III DC	Participation
shot put	Individual	Roshna N Shad III DC	Participation





## IV. NSS AND NCC

#### National Service Scheme (NSS)

Our I & II DC students participated in 7 day and 3 day camps organised by NSS. They also were the part of various programs organised by the NSS for the development of the students.

Certificate

#### TO WHOM SO EVER IT MAY CONCERN

This is to certify that the following students of Department of Physics participated in the 7 day and 3 day camps.

CANSAL

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Akshara Baby II DC - 3day camp

Dona II DC - 3 day camp

Sruthy II DC - 3 day camp

Christy I DC - 7 day camp

Archa I DC - 3 day camp

Dona I DC - 3 day camp

Tiby I DC - 3 and 7 day camp

Shilpa I DC - 3 day camp

Sr.Gloria I DC - 3 and 7 day camp

Mekha I DC – 7 day camp

NSS Programme Officer
### NCC

Students of our department actively participate in NCC. They actively participated in many camps in different parts of India. They have parade on every Saturdays and actively participate in various activities conducted by the battalion like, traffic control, service at District hospital ICU, blood donation, Swacch Bharat, orphanage visit, Republic day and Independence day parade. SUO E. V. Parvathy secured A grade for C certificate and CPL Anumol Chacko also secured C certificate in June 2017.







Officer Commanding 5 Kerala Girls Bn NCC Changanacherry-686 101

# प्रमाण - पत्र 'सी' **CERTIFICATE 'C'**

Н° No. <u>KER/SW/13/147487</u>	रैंक SU Rank	10	
नाम Name EV Parvathy	सुपुत्र/सुपुत्री Son/Daughter of	E K Víjayak	Rumar
युनिट Ufit (K) Girls Bn NCC, Changanacher			4
राष्ट्रीय कैडेट कोर निदेशालय			

NCC Directorate (K&L), Thiruvananthapuram

प्रमाणित किया जाता है कि ऊपरलिखित कैडेट ने रक्षा मंत्रालय, भारत सरकार के प्राधिकार के अधीन सन् 20.17...... में हुई प्रमाणपत्र 'सी' परीक्षा ..... श्रेणी में पास कर ली to

This is to certify that the above mentioned Cadet has Government of India.

क॰ सं॰ Ser. KER&L/C Cert/Girls/17/063

बी जी जगरीश BG Jagadeesh ब्रिगेडियग / Brigadier

स्थान PlacThiruvananthapuram

दिनांक Date 02-June - 2017

अपर महामिदेशक, देराष्ट्रीय कैडेट कोर Addl. Director General National Cadet Corps उप-महातिदेशक्राल्हराष्ट्रीय कैर्द्धेट)कोर Dy. Director General/ National Cade Corps

Certificate

#### TO WHOM SO EVER IT MAY CONCERN

This is to certify that the following students of Department of Physics participated in various NCC camps during the academic year 2017-18.

Roshna N Shad III DC ATC

Richie Thampi I DC ATC

Parvathy Salimkumar I DC ATC

Vineetha Devadas I DC ATC

Adhithya K. B. I DC ATC

Abhirami G. Kumar II DC - RDC II, TSC I, ATC, CATC

ARA

KOTTAYAM

Alpha Joseph II DC - RD 1, ATC, CATC

Relimmende

Lt. Dr. REEJA P. S. Associate NCC Officer 5 Kerala Girls NCC (SW) Army Wing B.C.M. College, Koltayam-686 001

NCC Program Officer

## V. ALUMINI DAY

#### Alumni meet

Alumni meet was conducted on 26th January 2018. <u>32</u> butterflies who flow high from this department during various academic year turned back once again to cherish their memories. They shared their sweet old memories and from their words we realized how much they missed BCM college life. They all wished we had MSc Physics in our college so that they could continue for two more years in the same campus.



DEPT. OF PHYSICS

Year

2014-2017

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Name of the Student Azya.A kautha G Indhulekshmi. P 4. Ashamol C.S. Linet Elsa Thomas Lachund K.S. 7) Lakshni K A. Lekshmi - 5. Nair Athina Dimesan Binila Benny Chethag Viswooathan Proveena Padmatumen Shancina Rahim Neethu Sonthasam Aswathy Vijay Reshma Rose Israel Amala Jacob Merlyn Cicy hilbest Resma John Jeffy K. Johney Tecera Sebastian Athira Maria Johnson Litty Thomas

4 2011-2014 2011-2014 2011-2014 2014 - 2017 1) 17 2013 - 2016 2013 - 2016 2013- 2016 2013- 2016 2013 - 2016 2013 - 2016 2013-2016 2013 - 2016 2013 - 2016 2013 - 2016 2013 - 2016 2011 - 2014 2013-2016

ALUMINI MEETING ONS 26th JANUVARY Phone No.

> 9496679041 9497746 21 9496588843

9747867921

9048835577 8289948047 8281872949

9961015113 9526482832

9747099353 9633496781. 9846143506

9746072086 8086787257.

8547 406450

9072270482

8304807158 8078364473 7356994776

8301011145

9447118468 974693 5461 8301888759

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## VI. CHARITABLE ACTIVITIES

#### Visit to Navajeevan Trust Kottayam

The visit to navajeevan trust Kottayam –a shelter for homeless-on 15th August 2017 was a memorable one. As the institution's name resounds, it evokes a new spirit in everyone. We met the helpless inmates who are cared by Thomas chettan and some well-wishers. The students sang songs and the inmates joined them. The students donated their personal savings and also helped in their works. They returned with a feeling of having cared the needy.





## VII. PRIZES IN INTERCOLLEGIATE COMPETITIONS

### **Intercollegiate** Competitions

Our students participated in various intercollegiate competitions held during the academic year 2017-18.

Competition	Participants	Position
JNIPHY quiz competition, SB	Anju Sajan and Merija K S III	Participation
College Changanacherry	DC	
UNIPHY quiz competition, SB	Diya Joji and Anjali Anil III	Participation
College Changanacherry	DC	
UNIPHY presentation	Roshna N Shad and Anumol	Participation
competition, SB College	Chacko III DC	
Changanacherry		
ATMOS treasure hunt,	Amrutha Raj, Anju Sajan, E	Participation
St. Thomas college Pala	V Parvathy and Sreelakshmi	
	G III DC	
Presentation competition,	, Diya Joji and Anjali Anil III	Participation
Basalious college Kottayam.	DC	

<b>FAYAM</b> TTAYAM)		TE Prof. V. JOHN MEMORIAL s College, Kottayam on 28 <sup>th</sup> November	Neha P.R. Convener	
BASELIUS COLLEGE, KOTTAYAM (AFFILATED TO MAHATMA GANDHI UNIVERSITY, KOTTAYAM)	entry of the second sec	This is to certify that Mr./MsAnjaliAnil participated/won-the	Dr. Sindu Jones H.O.D	
BA		This is to certify i participated/won-the POWER POINT COMPER	2017. Jancey Thomas Principal Place: Kotrayam Date: 28/11/2017	

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## VIII. INNOVATIVE/ UNIQUE PROGRAMMES

### Knowledge Corner: Scientific voyage through the inspiring lives.

A knowledge corner was arranged from 18 December 2018 to 11 January 2018 as a part of birthday of scientists J J Thomson, Henry Bequeral, Heisenberg etc.... The charts including photos, the influencing lives of the scientists and the working models of their inventions were exhibited. A quiz competition was also conducted on the respective days based on the charts displayed.

#### III DC

SL.NO	SCIENTIST AND DATE	MAJOR CONTRIBUTIONS
1	J J THOMSON [18/12/2017]	Plum Pudding Model
		Discovery of Electron
		• Discharge of electricity in gas
2	MICHELSON [19/12/2017]	Michelson interferometer
		• Speed of Light- Michelson Morley
		Experiment
3	HEISENBERG [08/01/2018]	Uncertainity Principle
		Heisenberg (classical )model
		Heisenberg (classical) model
4	HENRY BECQUERAL [09/01/2018]	Radioactivity
5	SIR ISSAC NEWTON [10/01/2018]	Laws of motion
		Universal Gravitation
		Newtonian Mechanics
		• Calculus

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Physics Association Report 2017-18

### II DC

SL.NO	SCIENTIST AND DATE	MAJOR CONTRIBUTIONS
1	S N BOSE [15/01/2018]	<ul><li>Bose Einstein statistics</li><li>Photon gas</li></ul>
2	BENJAMIN FRANKLIN [16/01/2018]	<ul><li>Lightning rod</li><li>Franklin Stove</li></ul>
3	ALEXANDER GRAHAM BELL [17/01/2018]	Telephone
4	JAMES WATT [18/01/2018]	Watt Steam Engine
5	AMPERE [1/01/2018]	<ul><li>Ampere's Circutal Law</li><li>Ampere's Force Law</li></ul>

















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## IX. UNION MEMBERS

College Union

Adona V S of II DC is the II DC representative in the 2017-18 College Union.



## X. PROGRAMMES FOR SLOW/ ADVANCED LEARNERS

### JAM coaching

Mr. Binto Binoy, FIP substitute at Department of Physics is providing free JAM coaching for UG students in and around Kottayam on all Saturdays expect on second Saturdays. This coaching was beneficial for students of our college and nearby colleges.



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Report Submitted by SAGIITTAR On 16-02-2018

Sny Philip HOD Pept. of Physics,