



P.K.M. COLLEGE OF EDUCATION

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PROGRAMME PORTFOLIO

DEPARTMENT OF PHYSICAL SCIENCE 2018 - 20



**REPORT OF FIRST SEMESTER
2018 -2020 BATCH**

The first semester classes for two year B.Ed program 2018 – 20 batch began on 9th July 2018. Along with the regular college activities the following novel practices were conducted during first semester.

COURSE INITIATION CEREMONY

The course initiation ceremony was conducted on 9th July 2018. As a symbol of course initiation the teachers hand over the ignited lamp to the students.

TALENT DAY

The talent day was conducted on 8th August, 2018. Sarika Chacko of Physical Science Department was the coordinator. All physical science students actively participated in the program.

KANNUR UNIVERSITY ELECTION

The election process under Kannur University was conducted on 31 August 2018. Nidhin Jose was elected as Union Chairperson, Sarika Chacko as Vice Chairperson and Josly Jose as Physical Science Class representative.

UNION INAGURATION

College union and fine arts inauguration was conducted on 19th August 2018. The elected members took their respective roles. Physical Science students involved in various committees for the programme. The Logo launching ceremony of Ozone Day was conducted in this occasion. Mr Binoy, Headmaster of Maryland HS Madampam, launched the logo. A promo video was also shown in the occasion.

TEACHERS DAY CELEBRATION

Teacher's day celebration was conducted on 5th September 2018. Teachers shared their experiences in teaching field. They also participated in various games and activities.

CLUB ACTIVITIES

Five clubs are working in college in this academic year. Student teachers took membership in different clubs. Sreya Joseph selected as the convener of Bhoomitra Sena club and Anjusha M selected as the convener of the Literature club. Riya Rose Mathew was elected as secretary of Electrol Literacy Club. Different clubs organized innovative programs.

PEACE FORUM

Shyna N Raju, Anjusha M and Sarika Chacko of Physical Science Department were selected as the coordinators of Peace Forum.

OBSERVANCE OF SCIENTIFIC DAYS OF IMPORTANCE

1. CHANDRADINAM

As part of "Lunar day" celebration, we conducted a program at P. K. M. college of Education on 23/07/2018 Monday. Nidhin Jose welcomed all to the program. We presented a small video of about 4 minutes prepared by ourselves. The content of the video was the history of the journey to the moon. A special emphasis was given to the 'Chandrayan', launched by India. A quiz program was also conducted. A single question was given to each student teachers and were asked to write the answer in 3 minutes. All the student teachers were actively participated in the quiz. Prizes were distributed later to the winners. The program was appreciable.

2. OBSERVANCE OF INTERNATIONAL OZONE DAY- 2018 AND INTERNATIONAL LEVEL SEMINAR

As a part of the Observance of International Ozone day, an International Seminar was conducted at P.K.M. College of Education, Madampam on 17th September 2018, under the leadership of the Physical Science Department. The programme was supported by Kerala State Council for Science Technology and Environment. An International level seminar on “Sustainable Cooling for All” and an Interschool Paper Presentation competition on “Ozone depletion:causes, impacts and solution” was also organized.

The inaugural function began at 9.45 am in the college auditorium. The college Principal in charge Dr. Rekha K.R. presided the function and the inauguration was made by Dr. Sunil Paul, Assistant professor of Chemperi Vimal Jyothi Engineering College and the C.E.O. Srishti Robotics Technologies Pvt Ltd. Instead of an inaugural address, he took a class based on how technology can be used to ease our work. The presence of Dr. M.K. Satheesh Kumar, who is a professor in the Department of Space Physics, in Wollega University, Ethiopia, Africa, was a great honour and pleasure for all of us. Mr. K.J. Chacko, PTA President of P.K.M. College delivered the felicitation speech. The welcoming address was made by Ms. Riya Rose Mathew, Student Coordinator of the programme. The inaugural function was concluded with the Vote of thanks delivered by Ms. Abia Jose, Student Coordinator of the programme.



The first session was made by Dr M.K. Satheesh Kumar, who is a known Indian Scientist and a research guide in Wollega University, on the topic “Impact of Ozone on Modulating Climate Change”. He was welcomed and introduced by Ms. Arya Premaraj C.K. of English Department.

Dr. Satheesh Kumar explained the role of ozone in protecting the earth. He emphasised the working of ozone with the harmful UV rays emitted from the sun. He gave an idea about the ozone hole, its discovery in 1970's in Antarctica and its relation with the climate change. The whole session was ended with the vote of thanks delivered by Ms. Sarika Chacko of Physical science Department



The second session started at 12.15 pm. Dr Bindu M.P. Assistant professor, School of Pedagogical Science, Kannur University, analysed various aspects of ozone depletion. She was introduced and welcomed by Ms. Anjana K.C. of English Department. Throughout the session, the emphasis was given to the suggestions for a sustainable cooling in our earth. The focal theme of the presentation was the controlling measures for the ozone depletion that can be employed in our daily life situations. The session was ended with the Vote of thanks delivered by Ms. Aparna Francis of Physical science department.



The third session began at 1.15 pm. Dr Prasanth Mathew, Assistant Professor in Physical Science, P.K.M. College of Education took the session. He mainly focussed on the theme of International Ozone Day 2018 'Keep cool and carry on! The Montreal Protocol. He talked about the relevance of the topic on the present life situations. He also gave the instructions to the paper presenters for the interschool paper presentation competition.



The paper presentation competition for High school and Higher Secondary school students started at 2 pm. The competition occurred as two parallel session. One for High school team participants and other for high school individual as well as higher secondary team participants. 61 students from 18 different schools participated in the competition. The competition came to an end at 4:30 pm. 11 categories of awards were given to the winners.



The valedictory function began at 4.30 pm after the paper presentations. Dr Rekha K.R. Principle in charge, P.K.M. College of Education announced the winners of the paper presentation competition at high school and higher secondary level. The mementos and certificates for the winners were distributed by Very Rev. Fr. Dr. Luke Pothrukayil, Pro Manager, P.K.M. College of Education, Madampam. The function came to an end by the National Anthem.





WORKSHOPS AND CONFERENCES

1. MODELS OF TEACHING

A workshop on “Class Room Based Research Projects” was conducted on 12th October 2018 at 9:30 AM to 10:30 AM in general hall, PKM College of Education, Madampam. The workshop

was organized by Department of Physical science, incorporated with English and Malayalam Department. The Resource person was Dr. Prasanth Mathew, Assistant Professor in Physical science. The themes of this workshop was models of teaching.

REPORT OF THIRD SEMESTER

DEPARTMENT OF PHYSICAL SCIENCE

2018 -2020 BATCH

P.K.M. COLLEGE OF EDUCATION MADAMPAM

The third semester classes for two-year B. Ed program 2018 – 20 batch began on 3rd June 2019. According to the syllabus of Kannur University this semester is the internship period for B.Ed students.

CRITICISM CLASSES

As part of internship program each student teacher have to take criticism classes in the college. The criticism classes for the batch 2018-20 were conducted on 14th, 17th and 18th of June 2019. Thus year the classes were conducted in our college itself by bringing the students of 8th and 9th classes of Maryland HS, Madampam. Each class contains 15-20 students. Proper timetable was scheduled for all student teachers without any delay.

The student teachers of Physical Science optional took the following topics in respective dates:

14/06/2019

1. Sarika Chacko – Rutherford Atom model – class 9
2. Anjusha M. – Fibres and Plastics – class 8
3. Nidhin Jose – Electronic configuration and stability – class 9
4. Riya Rose Mathew – Sound – class 8

17/06/2019

5. Abia Jose – Centrifugal force – class 9
6. Josly Jose – Magnetic field – class 8
7. Sonia Cyriac – Surface tension – class 8
8. Shyna N Raju – Centre of Gravity – class 9 18/06/2019
9. Aparna Francis – Refraction – class 9
10. Sreya Joseph – Oxidation state – Class 9
11. Athira K. – Ionic Bonding – class 9

DEMONSTRATION CLASSES

The demonstration classes for the year were conducted at Maryland HS, Madampam and Kannadiparambu school. The class of Mr. Venugopal sir was conducted at Maryland HS, Madampam on 13/06/2019. The topic was Position - time graph and Chemical changes for 9th standard. The other class was by Mr. Manoj Kannadiparmabu sir on 23/06/2019. The topic was subshell electronic configuration for 10th standard students.

Both the classes gave us good lessons on teaching Physics and Chemistry.

INTERNSHIP

The internship for the year 2018 – 20 was started on 24th June 2019. The whole students of our batch went to ten different schools for the four month internship period. Each student teacher have to teach in High school classes for three months and in UP/Higher Secondary classes for one month. The eleven student teachers of Physical Science optional went to following schools for their internship:

1. Riya Rose Mathew & Aparna Francis – AKS GHSS Malappattam
2. Sreya Joseph & Athira K. – GHSS Irikkur
3. Abia Jose & Josly Jose – GHSS Nedungome
4. Nidhin Jose & Sonia Cyriac – Sacred Heart HSS, Payavoor
5. Anjusha M. & Sarika Chacko – St. George HS, Chempanthotty
6. Shyna N. Raju – Maryland HS, Madampam

The school leaders of five schools were from Physical Science optional. Josly Jose – GHSS Nedungome, Riya Rose Mathew – AKS GHSS Malappattam, Sonia Cyriac – SH HSS Payavoor and Shyna N Raju – Maryland HS, Madampam.

During the internship period all student teachers actively involved in various curricular and co curricular activities. The activities of Science club were led by student teachers during this period. All scientific days of importance were celebrated in schools. Various days like Lunar day, Hiroshima day, Reading day, International Ozone Day etc were observed in schools. Two schools received the fund from KSCSTE for observing International Ozone Day. Various programmes were conducted by the leadership of student teachers during internship period. The three months in High School section end on 20th September 2019 and the one month practice in HSS/UP section started on 23rd September 2019. The internship period came to an end on 24th October 2019.

PRACTICAL EXAMINATION

The record submission for the practical examination was from 28th October 2019 to 5th November 2019. The practical examinations of the year was conducted on 7th & 8th November 2019. The class of all students completed on 7th November. The viva for student teachers were conducted on 8th November. For chairman viva, out of seven student teachers, two student teachers were selected from Physical Science optional. By the practical examination, the third semester came to an end.

PAPER PRESENTATION

The student teacher of Physical Science optional Athira K. along with Ashish Saseendran of B.Ed 2019-21 batch presented a paper at International Seminar on Emerging Trends in Education at Mar Baselios College of Education, Sulthan Bathery, Wayanad on 2/08/2019. The title of the paper was Subtlety in Science and its Subtleness in Science Education – A Conceptual Model.

2. WORKSHOP ON COMMUNICATION IN SCIENCE

A workshop was conducted on the topic “Communication in Science” in our class. The moderator was Sarika Chacko. The workshop was conducted in three days 9th, 10th & 11th of October 2018.

A single topic was assigned to each students. The topics discussed were:

- i. Lecture cum demonstration method- by Abia Jose
- ii. Project method- by Athira
- iii. Problem solving method - by Aparna Francis
- iv. Heuristic method - by Athira
- v. Historical method - by Anjusha M
- vi. Brainstorming method and buzz session - by Josly Jose
- vii. Group discussion/cooperative learning/collaborative learning- by Sreya Joseph
- viii. Seminar/ Conferences/ Workshops - by Shyna N Raju
- ix. Concept map-by Sonia Cyriac
- x. Online sharing/membership in professional organizations-Riya Rose Mathew



OTHER INNOVATIVE WORKS

1. LAUNCHING OF YOU TUBE CHANNEL

Physical science department created a YouTube channel Physica Scientia to present our thoughts and activities. The launching program was conducted at P.K.M. College of Education on 1st August 2018 Wednesday. Josly Jose delivered the welcome speech. Our Principal in charge Dr. Rekha K.R. inaugurated the launching ceremony. There was a small video prepared by Physical Science Department in our You Tube channel. This attempt was well appreciated.

2. UPLOADING OF VIDEOS

Various videos created by the students published in the channel. After the flood disaster a video 'Keralam Athijeevikumo' was uploaded in channel. Also the promo video and the feedback videos of Ozone Day Celebrations 2018 were also uploaded.

3. PAPER PRESENTATION AT PALA ST THOMAS COLLEGE

A paper presentation was done by the students for Two- Day National seminar cum Workshop on the topic "Teaching Learning Platforms for Digital Natives" at St Thomas College of Teacher Education, Pala organized by UGC-HRDC & SIRA on 27th & 28th September 2018.

Eight student teachers from Physical Science Department presented the papers. The presenters & title of the papers are:

1. Digital Parenting : A Paradigm Shift from Parents to Teachers : Riya Rose Mathew
Aparna Francis
2. Digital Initiatives and its Consequent Initiatives : Sarika Chacko
Sonia Cyriac
3. Impact of Digital Initiatives in developing a digital culture in digital migrants
: Shyna N Raju
Anjusha M
4. Trolls as an edutainment for digital natives
: Abia Jose
Josly Jose



3. ANSWER BANK

An answer bank was prepared for the first semester syllabus. Athira K took initiative for the preparation of answer bank. The answer bank include a collection of best answers for each topic in the syllabus. The answer bank was prepared by regular class room discussion, referring textbooks and online resource

BIRTHDAY CELEBRATIONS

Birthdays of each student is important and it was decided to celebrate birthdays, giving surprise to make them feel special on the special day. Anjusha's birthday was on 19th October.

Dr Prasanth Mathew's birthday was celebrated on 24th October.



ROLES ASSIGNED			
1	Class managers	Shyna N Raju & Riya Rose Mathew	
2	Science lab	Josly Jose & Nidhin Jose	
3	ICT	Abia Jose and Athira K	
4	Research	Sreya Joseph & Aparna Francis	
5	Extension	Sarika Chacko & Anjusha M	
6	Coordinators of Ozone day celebration	Riya Rose Mathew & Abia Jose	
7	You Tube Channel Coordinator	Josly Jose	



**DEPARTMENT OF PHYSICAL SCIENCE
2018-20 BATCH**