

## DEPARTMENT OF PHYSICS: ANNUAL REPORT 2017-18

This annual report will provide an overview of the department's activities during the past year, including academic achievements, research accomplishments, and outreach efforts. This year we organized several programs including seminars, invited talks, exhibitions etc. We invited scholars from other institutions to share their research and exchange ideas with our faculty and students.

### I. ACADEMIC PROGRAMS OFFERED BY THE DEPARTMENT

Sl. No.	Name of the Program	Aided / self financing
1	BSc Physics	Aided
2	MSc Physics	Self financing

### II. DETAILS OF FACULTIES

Sl. No.	Name of the Faculty	Designation	Qualifications	NET/JRF / GATE/ SET	PhD/ M.Phil.
1	Biju KG	Associate Professor	MSc, MPhil	Nil	MPhil
2	Hashim NK	Assistant Professor	MSc	NET	Nil
3	Joseph MV	Rtd. Professor	MSc	Nil	Nil
4	Sumeesha KL	Assistant Professor	MSc	Nil	Nil
5	Febina CK	Assistant Professor	MSc	Nil	Nil
6	Shamna KH	Assistant Professor	MSc	Nil	Nil
7	Neeraja Krishna	Assistant Professor	MSc	Nil	Nil
8	Shemeena P H	Assistant Professor	MSc	Nil	Nil

### III. STUDENTS STRENGTH

programme	year	student strength	Total
BSc Physics	I Year	41	114 (BSc)
	II Year	36	
	III Year	37	
MSc Physics	I Year	12	23 (MSc)
	II Year	11	
TOTAL STUDENTS			137

### IV. UNIVERSITY EXAMINATION RESULTS

programme	No of students attended the examination	No of students passed	Pass %
BSc Physics	28	22	79%
MSc Physics	12	9	75%

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### V. Details of Teachers, who are/were participated in Seminars/Workshops/ Conferences/ Other assignments (Other than Orientation/Refresher)

Name of the faculty	No of programs attended	From	To	No of days	level	Item	Particulars	organizing institute
Biju K G	1	11/02/2018	17/02/2018	five	International	Workshop	Indo-French workshop	IUCAA
Hashim N K	1	28/10/2017	29/10/2017	Two	State	FDP	Higher Education Revolutionize your new gents to challengers	Lead college , Palakkad
	2	1/12/2017	2/12/2017	Two	National	Conference	Astronomy research opportunities and challenges	WMO Arts and science college muttil
	3	4/12/2017	5/12/2017	Two	State	Seminar	Second law of Thermodynamics and Dirac delta function	CKG Govt College Perambra
	4	17/01/2018	06/02/2018	fourteen	National	Refresher	Electronics,Electrical and Communication Engineering	University of Hyderabad
	5	17/03/2018	17/03/2018	one	State	Workshop	Paristhikam Environment activity training	Directorate environment and climate change
	6	05/04/2018	07/04/2018	Three	National	Workshop	Curriculum Design through Moodle	Central university of Kerala

The Various activities of the Physics department for the year 2017-18 are summarized below.

## VI. INVITED TALKS

Department conducted 2 invited talks in the academic year 2017-18.

1. Sri. Chintak Murali, Research scholar IIA, Bangalore has given a talk on “ Gravitational Waves” on 13/12/2017.
2. Sri. Aliyas KP has taken a class on 14/11/2017 on the topic “The need of scientific attitude” in connection with Kerala rally for Science.

## VII. SEMINARS AND WORKSHOPS CONDUCTED:

### 1. Regional Astronomers meet

The 4<sup>th</sup> regional Astronomers meeting on “ Research in Astronomy- Opportunities and challenges” was conducted by the Department of physics, during 1-2 December 2017. The Programme was inaugurated by Prof Ranjeev Misra (IUCAA) and presided over by Dr. TP. Muhammed Fareed, Principal of the college. In the two day meeting a total of 27 presentations, each of 15 minutes duration were made by research students. The topics covered were on cosmology, AGN, Stars, ISM, IGM, Galaxies, Gravitational waves, Instrumentation and machine Language. A total of 40 research scholars from IIST,TVM; IUCAA,Pune; NCRA,Pune; IISER, Kolkata; CUSAT, MG University, Calicut University, Christ University, Bangalore and Pondicherry University were participated. In addition to it there were 7 review talks by senior faculty members. These talks were given by Dr. VC Kuriakose,( CUSAT) Annapurni subramaniam (IIA), Charles Jose (CUSAT), Dr. Indulekha (MG University, Kottayam), Dr. Blesson Mathew ( Christ University ) and Dr. Sajith Ninan Philip (St. Thomas college, Kozhencher). Dr. Joe Jacob ( Newman college, Thodupuzha) and Prof. Ranjeev Misra (IUCAA) were the academic coordinators. Mr. Biju KG ( Department of physics) officiated as the organising secretary.

**ABOUT THE COLLEGE**  
WMO Arts & Science college is an aided college, affiliated with University of Calicut and accredited by NAAC with 'A' grade. The college is established in 1995 and managed by Wayanad Muslim Orphanage (WMO), which is an endeavour to support the educationally and financially backward people of the region. The college is located in a beautiful hill area at Muttil, six km away from Kalpetta, the district headquarters. Presently it offers seven postgraduate programmes and 11 undergraduate level programmes. Department of physics was established in the year 1995 along with the inception of the college. In the beginning, it offered BSc physics programme [with mathematics and computer science as a subsidiary. Later, in 2002, it was upgraded to a postgraduate department.

**THE VARIOUS TOPICS OF FOCUS IN THE CONFERENCE**

1. Cosmology	2.Active Galactic Nuclei ( AGN)
3. Stars and ISM	4. Galaxies and IGM
5. Gravitational waves.	

**RESOURCE PERSONS**

1. Prof. Ranjeev Misra, IUCAA, Pune
2. Dr. Annapurni Subramaniam, IIA, Bangalore
3. Dr. VC Kuriakose, CUSAT
4. Dr. Naseer Khalid, JK university
5. Dr. Paul KT, Christ University, Bangalore
6. Dr. Sajith Ninan Philip, St. Thomas, Kochincheri
7. Dr. Joe Jacob, Newman college, Thodupuzha
8. Dr. Minu Joy, Alphonso college, Pitha
9. Dr. Charles Jose, CUSAT
10. Dr. Blesson Mathew, Christ University, Bangalore
11. Dr. C.D Ravikumar, Calicut University
12. Dr. Jeena Karunakaran, Providence college, Calicut

**ORGANISING COMMITTEE**

General Convener	Dr. TP Muhammed Fareed, Principal
Co-ordinators	Prof. Ranjeev Misra, IUCAA Dr. Joe Jacob, Newman College, Thodupuzha
Convener	Mr. Biju KG, HOD Physics
Members	1. Mr. Hashim BK 2. Mr. Joseph MV 3. Ms. Suresha KL 4. Felina CK 5. Shamma VP 6. Neeraja Krishna 7. Aswathy MS 8. Ashraf Manoth.

**REGIONAL ASTRONOMERS MEETING-IV**  
"ASTRONOMY RESEARCH: OPPORTUNITIES AND CHALLENGES"  
1 - 2, DECEMBER 2017

Organized by  
Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune  
&  
Department of Physics,  
WMO Arts & Science College, Muttil

IUCAA



## 2. Science fest 2018

The department organized a one day seminar 'Science fest 2018' in connection with National Science Day on 27-02-2018, with the support of KSCSTE, Trivandrum.

Sri. Sabu Jose (Science writer) delivered a talk on science and pseudo-science and Dr. Muhammed Shafi (Former HOD, Dept of Chemistry, University of Calicut) delivered a talk on science and society. More than 100 students participated in this seminar



## VIII. EXTENSION PROGRAMMES:

1. Department has taken initiative to pass information and publicity among the staff and students about the importance of watching the super blue blood moon, a rare phenomenon that happened on 31<sup>st</sup> January 2018.
2. The departmental students and staff participated in the 'Ralley for science' arranged at Kalpetta with the support of KSCSTE.



## IX. PHYSICS ASSOCIATION

- The Physics Association was formally Inaugurated by Sri. Chintak Murali on 13-12-2017 and Principal Dr. Fareed Muhammed Presided over the function.
- All the action plans of the physics department are implemented through the physics association.

## X. ACHIEVEMENTS OF THE STUDENTS

- Aparna KM got selection in Kasargod central university for MSc physics program.
- The students of physics department actively participated in the F zone competition and bagged many prizes.
- A large fraction of the students of the department are members of Bhumithra sena and NSS.

## XI. BEST PRACTICES

- The department collects used books from senior students and gives them to needy students.
- The department has arranged an honesty shop, where students will get paper, pen, pencil, rubber etc.. and the money can be deposited in the box there. This is introduced to inculcate moral values like honesty and trust in the students.
- Constant contact with alumni and their academic support to department
- Very friendly teacher –taught relationship

