

DEPARTMENT OF PHYSICS: ANNUAL REPORT 2022-23

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 programmes including seminars, invited talks, exhibitions etc. We invited scholars from other institutions to share their research and exchange ideas with our faculty and students. The department also engaged with the local community through various outreach efforts.

I STUDENT STRENGTH.

| PROGRAMME | YEAR | STUDENT STRENGTH | Total |
|----------------|----------|------------------|-------|
| BSc Physics | I Year | 25 | 105 |
| | II Year | 39 | |
| | III Year | 41 | |
| MSc Physics | I Year | 11 | 29 |
| | II Year | 18 | |
| TOTAL STUDENTS | | | 134 |

II FACULTY DETAILS

| Sl. No. | Name of the Faculty | Designation | Qualifications | NET/JRF / GATE/ SET |
|---------|-------------------------|---------------------|----------------|---------------------|
| 1 | Dr. Biju KG | Associate Professor | PhD | Nil |
| 2 | Hashim NK | Assistant Professor | MSc | NET |
| 3 | Joseph MV | Rtd. Professor | MSc | Nil |
| 4 | Neeraja Krishna | Assistant Professor | MSc | SET |
| 5 | Amaya Sivan | Assistant Professor | MSc | SET |
| 6 | Nithin Soman P | Assistant Professor | MSc | NET |
| 7 | Dr. Muhammed Sabeer N.A | Assistant Professor | PhD | JRF |
| 8 | Dr Siraj KK | Assistant Professor | PhD | Nil |

III UNIVERSITY EXAMINATION RESULTS (2020-21)

| PROGRAMME | No of students attended the examination | No of students passed | Pass % |
|-------------|---|-----------------------|--------|
| BSc Physics | 40 | 22 | 55 |
| MSc Physics | 16 | 11 | 69 |

IV PUBLICATIONS OF FACULTY MEMBERS

- 1.A book titled Q Mech capsule published by Mr. Nidhin Soam and Amaya Sivan
- 2.Published an article in World Journal of Pharmaceutical research -Physiochemical characterization of Transdermal patch by Mr. Hashim+
- 3.Standard model and modeling of Quarks, A conference paper by Dr. K Siraj
- 4.Regional anomalies in the distribution of educational opportunities in Kerala a conference paper by Mr. NK Hashim

5.X ray diffraction analysis of chromium based thin film by Dr. NAM Shabeer

V STUDENTS ACHIEVEMENTS.

1. 23 out of the 39 (2018 admn)students who passed BSc physics joined for higher studies.
2. 4 of the MSc students joined for higher studies and two got employed in the software field.
3. Mr. Ansil Babu got an outstanding grade in PG results.
4. Mr. Abhinath VV got excellent performance in sports in game inter university level

VI STUDENTS MAGAZINE

Students published a magazine titled 'Kanavu'



VII MAJOR ACHIEVEMENTS OF ALUMNI

1. **Dr. Najeeb** got appointed in NASA as a Postdoctoral fellow.
2. **Mr. Shanid PK** got appointment as PO in Federal bank
3. **Ms. Febna CK** got appoint as HSST
4. **Mr. Muhammed Shareef** got an opportunity in the arctic expedition team of Govt. of India.
5. **Ms Aswathy MS** got appointment as UPSA

VIII BRIDGE COURSE CONDUCTED

1. Mathematical Physics(For MSc) By Ms. Amaya Sivan
2. Physics Foundation-1(For Core) By Dr Biju& Dr Siraj
3. Physics Foundation-2(For Complimentary)by Neeraja Krishna

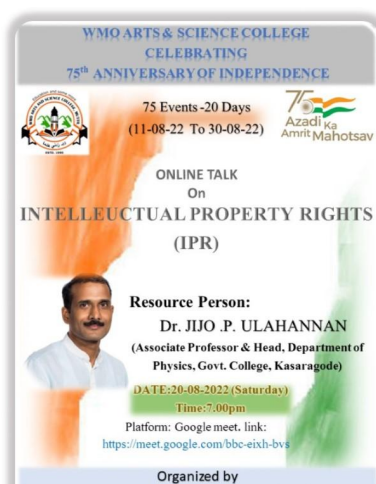
IX CERTIFICATE COURSES CONDUCTED

1. Foundations Latex for scientific writing by Dr. Siraj
2. Non Conventional Energy sources by Dr. Biju KG
3. Basics of astronomy by Dr Biju KG
4. Introduction to Python programming by Dr. Siraj



DEPARTMENTAL ACTIVITIES

1. An online talk on intellectual property right



DEPARTMENT OF PHYSICS: ANNUAL REPORT 2022-23

An online talk on intellectual property right by Jijo P Ulahannan, organised on 20/08/22

2. Invited Talk by Dr. PM Sidharthan (Rtd. Scientist ISRO) on 28/08/22



A talk given By Dr Sigdharthan PM on the title indian science after independence as a part of azadi ka amruth maholsav

Azadika Amruth maholsav- Poster exhibition

As part of Azaduka amruth maholsav students of physics department exhibited poster on india's science and technology, Faculty Ms Febina CK inaugurated the program



4. launch of 'Physket'


Physics students weekly sitting for the updation recent invention, 'Physket' launched on 16/10/22 by Dr Sebastian P



physket presentation

5. Panel discussion - observance of national education day

Panel discussion on the title 'Model teacher' on 17/11/22

 **WMO** ARTS & SCIENCE COLLEGE

DEPARTMENT OF PHYSICS
PRESENTS

PANEL DISCUSSION ON THE TOPIC
"MODEL TEACHER "


| Date | Time |
|------------|---------|
| 17-11-2022 | 3:30 PM |

On the celebration of
National Education Day

Venue @Physics Hall

Rules :-

- Only two students can participate from each class.
- Don't make your words difficult for others.



6. Azadika amruth maholsav

Part of the azadika amruth maholsav dept students conducted various programs such as treasure hunt, debate competition etc



7. Hiroshima - Nagasaki day
The day was observed on 10th Aug 2022
Mr Eliyas delivered a talk



7. Freshers Day party

Senior students and faculties arranged a freshers party on 29/10/22, various cultural events were held on the same day



8. Debate on gender equity

The program was moderated by Mr Madusoodanan HoD of Economics and statistics.



Orientation programme conducted for I Semester UG students on 20-01-2022, by Triz learning center.

9. STUDY TOUR



The department conducted a study tour to NIT surathkal, Dr Biju KG led the team.

10. Onam, X mas and Eied Celebrations





V. Eminent Personalities visited the college:

1. Dr. Sidharthan PM (Scientist ISRO, Rtd)
2. Dr.sebastian Koothottil
3. Mr.Elias KP Amature Astronmer

Mentoring and Feedback s system

All the faculties are mentors, 15 UG students are assigned to each faculty.Feedback is collecting as per the IQAC direction.Separate individual teacher's feedback taking for self improvement via Google form

Internal Evaluation remedial class

Internal Evaluation

Internal evaluation has been done in a continuous and comprehensive way.Some teachers are using the LMS platform.Some teachers are using Google classroom.

Remedial classes

Remedial teaching has done based on internal mark score, by providing more class for practical

Participation of Seminar/ workshop /FDP

1. Dr. Shabeer, Dr Siraj and Mr HashimNK Participated in one week FDP organized by WMO College Muttill
2. Ms Neeraja Krishna,Dr. Shabeer, Dr Siraj and Mr HashimNK Participated in one week workshop in Moodle based LMS organized by KSHC
3. Mr hashim NK completed a refresher course in academic writing conducted by Ramanujan College Delhi

Ongoing Research activities of the faculty members

DEPARTMENT OF PHYSICS: ANNUAL REPORT 2022-23

1. Dr. Siraj is doing theoretical post doctoral research in High energy Physics
2. Dr. NAM Shabeer continuing his research in thermoelectric transducer for heat energy to electrical energy, publication work is under process
3. Mr. Hashim NK doing research in chemical profiling and Nano scaling of Ayurveda medicine as part the PhD program

Faculties engagements in the corporate life of the college

1. Dr. Biju KG is steering the IQAC NAAC, Member of college council
2. Neeraja Krishna member of UG Admission cell
3. Hashim NK –Member of College Council, Co ordination of career guidance cell and Basic amenities cell
4. Dr. NAM Shabeer criteria committee of NAAC
5. Dr. Siraj – College LMS management

Charges of departmental Activities

1. IQAC coordinator - Mr. Nidhin Soman
2. UG Admission- Ms. Neeraja Krishna
3. PG Admission- Dr. NAM Sabeer
4. LMS Promoter-Dr. Siraj KK
5. Dept. Library-Mr. Hashim NK
6. Alumni Co ordination-Dr. NAM Sabeer
7. PG Course coordinator- Mr. Nidhin Soman
8. UG course coordinator-Mr. Hashim NK
9. Association activities- All teachers (monthly rotation basis)

Alumni meet

This year department conducted alumni meeting of tree batches, 0

Alumni meet(2009-12)



Alumni meet(2017-20)



Alumni meet(2018-21)



VI. 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