



PROVIDENCE WOMEN'S COLLEGE

(AUTONOMOUS)

DBT STAR COLLEGE

RE-ACCREDITED WITH GRADE A++ BY NAAC

COLLEGE WITH POTENTIAL FOR EXCELLENCE [2016-21]

DEPARTMENT OF PHYSICS

**Report
2024-2025**

FACULTY IN VARIOUS ROLES

DR A. SOBHA

- Assistant Controller of Examination (Autonomous)
- Chairperson of Question Paper Setter Kannur University
- Member of Question Paper setter St. Joseph College Devagiri
- Member of Question Paper setter for PSC
- DBT Department Coordinator
- Linways LMS Coordinator
- Active Participation in Assessment and Evaluation Process

Paper Published

- Sobha, A. and Panjikaran, M.J., 2025. Electrochemical performance and energy storage capacity of copper sulphide (CuS) nanoparticles obtained by the co-precipitation method. *Next Materials*, 8, p.100634.
<https://doi.org/10.1016/j.nxmte.2025.100634>

FDP

National level Faculty Development Program on PROGRAMMING USING PYTHON organized by Hindu College in collaboration with Spoken Tutorial, IIT Bombay from July 22, 2024 to August 10, 2024.

DR SINIR

- IQAC Member (College level)
- UBA Coordinator (College level)
- Dean of Extension (Autonomous)
- Head of the department
- Chairperson of Board of Study Physics (Autonomous)
- Chairperson of FYUGP and PG examination for Semester 1 & 2 (Autonomous)
- Criterion 7 coordinator
- Discipline committee member

Paper Published

- 1.Strong gravitational lensing and shadows by quantum Schwarzschild black hole in homogeneous plasma, Rukkiyya V P, Sini R, International Journal of Theoretical Physics, Volume 64, No 3, 2025
- 2.Ashna, V.M., Bhaskar, A., Manju, G. and Sini, R., 2024. Solar wind-magnetosphere coupling efficiency and its dependence on solar activity during geomagnetic storms of 23–24 solar cycles. *Journal of Geophysical Research: Space Physics*, 129(8), p.e2023JA03168. Volume129, Issue 8, August 2024,e2023JA031687

Conferences attended

- 1.Attended the workshop on CU-FYUGP BSc. Physics Honours Practical Experiments organized by Sacred Heart College (Autonomous), Chalakudy in association with Academy of Physics Teachers, Kerala & UG Physics Board of Studies, University of Calicut on 28th September 2024.

Resource person

Dr Sini R engaged a session on uba activities in Deeksharambh 24 organised by Providence Women's College on 5/7/2024

DR JEENA K

- IQAC Member (college level)
- Criterion 3 coordinator
- ICARD co-ordinator
- DST Curie Co-Investigator
- Member of Question Paper setter St. Joseph College Devagiri

Papers Published

1. Long term X-ray spectral variations of the Seyfert-1 galaxy Mrk 279, K. Akhila , Ranjeev Misra , Savithri H. Ezhikode , K. Jeena, Research in Astronomy and Astrophysics, Volume 24, No 6, 2024
- 2.Modelling the energy dependent X-ray variability of Mrk 335, K. Akhila, Ranjeev Misra, Rathin Sarma, Savithri H. Ezhikode, K. Jeena,Journal of High Energy Astrophysics, Volume 45, 2025.

Conferences attended

- Participated in the thematic workshop on 'Space and Climate Change' at VSSC, on 9-10-2024, as part of the World Space Week-2024 celebration.
- Attended the regional Astronomy meeting X- Research in Astronomy, opportunities and challenges, at CUSAT, on 31-01-2025.

DR SIJIA J

- PG Nodal officer
- Scholarship Nodal officer
- FYUGP Department coordinator
- Carrier guidance cell - Department coordinator
- Active participation in assessment & evaluation processes
- Fist 2 Coordinator

FDP

Attended NEP 2020 Orientation and Sensitization Programme organized by UGC-MMTC, University of Calicut from 5th May 2025 to 14th May 2025

MS SHIJA K

- Secretary of Board of Study Physics (Autonomous)
- Grievance redressal cell departmental coordinator
- Active participation in Assessment and evaluation processes

Conferences attended:

- Delivered an oral session on international Conference on Nano Structured Materials and Nanocomposites (ICN 2024) at M.G. University during 10-12 May 2024.
- Attended 13th annual Asia Oceania Neutron Scattering Association Neutron School organized at Bhabha Atomic Research Centre Mumbai during 24- 28 November 2024.
- Presented a poster at the 2025 Joint MMM-Intermag Conference, New Orleans, Louisiana, USA for the dates of January 13-17, 2025.

DR ASWATHY S

- Career & Placement officer
- College coordinator: Udyog Jyothi project
- College coordinator: Vijnana Keralam project
- Mentor of Talent Accelerator Program
- Active participation in assessment & evaluation processes

Workshops attended:

- AI/ML Applications in Astronomy & Astrophysics (AMAA) held during 06-10 January, 2025 at IUCAA pune in online mode
- Workshop for the preparation of second semester question bank under board of studies in Physics held from 20.11.2024 to 22.11.2024 at MMTC, University of Calicut

Poster presentation:

- Secured second prize for poster presentation titled “Dependence of spectral properties of active galactic nuclei on their central light concentration” held as part of the National Conference on Data Science Innovations in Astronomy (NCDSIA) organised by the Department of Statistics, Amity University, Kolkata during 03-04 January 2025.

DR ALEENA CHACKO

- Active participation in assessment & evaluation processes

MS MARIOT JOSE

- Active participation in assessment & evaluation processes.
- Attended National Level FDP on Programming using Python

Paper Publications

- Sobha, A. and Panjikaran, M.J., 2025. Electrochemical performance and energy storage capacity of copper sulphide (CuS) nanoparticles obtained by the co-precipitation method. *Next Materials*, 8, p.100634.

GATE & JAM ACHIEVEMENTS



Gayathri V
BSc. Physics 2021-24
JAM 2025 AIR 480
GATE 2025 AIR 873



Aswini A
BSc. Physics 2021-24
JAM 2025 AIR 672



Abhina K P
II MSc. Physics
GATE 2025 Qualified



Aleena Akhilesh
III BSc. Physics
JAM 2025 Qualified



Sreenanda P
III BSc. Physics
JAM 2025 Qualified



Nandana K P
III BSc. Physics
JAM 2025 Qualified

JAM & GATE SCORE CARD

JAM - 2025 SCORE CARD 

CANDIDATE DETAILS

Name: **GAYATHRI V**

Parent's/Guardian's Name: **SURESH KUMAR V**

Registration Number: **PH114A034**

CANDIDATE PERFORMANCE

Test Paper (Code)	Number of Candidates Appeared in the Test Paper	Marks Scored (out of 100)	All India Rank
Physics (PH)	10877	37.00	480

CUT-OFF MARKS

Test Paper (Code)	GEN	GEN-EWS/OBC-NCL	SC/ST/PwD
Physics (PH)	14.66	13.19	7.33

JAM - 2025 SCORE CARD 

CANDIDATE DETAILS

Name: **ASWINI A**

Parent's/Guardian's Name: **MANOJ**

Registration Number: **PH115A144**

CANDIDATE PERFORMANCE

Test Paper (Code)	Number of Candidates Appeared in the Test Paper	Marks Scored (out of 100)	All India Rank
Physics (PH)	10877	33.33	672

CUT-OFF MARKS

Test Paper (Code)	GEN	GEN-EWS/OBC-NCL	SC/ST/PwD
Physics (PH)	14.66	13.19	7.33

JAM - 2025 SCORE CARD 

CANDIDATE DETAILS

Name: **ALEENA AKHILESH**

Parent's/Guardian's Name: **AKHILESH K**

Registration Number: **PH115A041**

CANDIDATE PERFORMANCE

Test Paper (Code)	Number of Candidates Appeared in the Test Paper	Marks Scored (out of 100)	All India Rank
Physics (PH)	10877	18.33	2906

CUT-OFF MARKS

Test Paper (Code)	GEN	GEN-EWS/OBC-NCL	SC/ST/PwD
Physics (PH)	14.66	13.19	7.33

JAM - 2025 SCORE CARD 

CANDIDATE DETAILS

Name: **SREENANDA P**

Parent's/Guardian's Name: **SIVAKUMAR V**

Registration Number: **PH115A149**

CANDIDATE PERFORMANCE

Test Paper (Code)	Number of Candidates Appeared in the Test Paper	Marks Scored (out of 100)	All India Rank
Physics (PH)	10877	18.00	3027

CUT-OFF MARKS

Test Paper (Code)	GEN	GEN-EWS/OBC-NCL	SC/ST/PwD
Physics (PH)	14.66	13.19	7.33

JAM - 2025 SCORE CARD 

CANDIDATE DETAILS

Name: **NANDANA K P**

Parent's/Guardian's Name: **MANOJ KUMAR K**

Registration Number: **PH115A138**

CANDIDATE PERFORMANCE

Test Paper (Code)	Number of Candidates Appeared in the Test Paper	Marks Scored (out of 100)	All India Rank
Physics (PH)	10877	18.00	3053


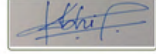
CUT-OFF MARKS

Test Paper (Code)	GEN	GEN-EWS/OBC-NCL	SC/ST/PwD
Physics (PH)	14.66	13.19	7.33

GRADUATE APTITUDE TEST IN ENGINEERING 2025
अभियांत्रिकी सातक अभिक्षमता परीक्षा २०२५
Organising Institute: INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

SCORE CARD

Name of the Candidate	ABHINA K P
Name of the Parent/Guardian	PRASHEEB KUMAR K K
Registration No.	PH25S71414069
Date of Birth	May 2, 2002
Test Paper	Physics (PH)
Date of Examination	February 16, 2025
GATE Score	333
Marks out of 100	25.67
All India Rank (AIR) in the test paper:	3330
Number of candidates appeared for the test paper:	19225
Qualifying Marks:	
General:	26.8
EWS/OBC-NCL:	24.1
SC/ST/PwD:	17.8

National Scholarship for Post Graduate Studies of Rs 3 Lakhs each



Nila S
II MSc. Physics



Nandana Anilkumar
II MSc. Physics

SET 2025 QUALIFIED



Najeeba Shirin M
II MSc. Physics

STATE ELIGIBILITY TEST- JANUARY - 2025
DIRECTORATE OF GENERAL EDUCATION
GOVERNMENT OF KERALA
(Conducted by LBS Centre for Science & Technology)
RESULT OF THE TEST CONDUCTED ON 02-02-2025
RESULT PUBLISHED ON 20-03-25

Roll Number	40240049	
Name of Candidate	NAJEEBA SHIRIN. M	
Marks Secured	Paper I	54.0000/120.0000
	Paper II	57.0000/120.0000
Percentage of Mark	Paper I	45 %
	Paper II	47.5 %
	Aggregate	46.25 %
Result *	Passed	
! Congratulations !		
Subject: Physics		
Community/ Quota	OBC(Non Creamy Layer)	

* Result is provisional. Certificate will be issued subject to the satisfaction of relevant conditions in the prospectus.

Higher Education & Job Placements



Aleena Akhilesh
III BSc. Physics

Recipient of Fully Funded Scholarship
for MS in Applied Physics at KAUST,
Saudi Arabia



Riza Fathima
III BSc Physics

Secured placement at Talrop



Gopika V Nair
III BSc Physics

Secured Placement at ICICI
Prudential – ₹2.90 LPA



Merissa Antony
III BSc Physics

Secured Placement at ICICI
Prudential – ₹2.90 LPA

B-zone & Interzone Winners



Kadambari Nath
II BSc Physics
Mime 1st



Niyatha Mohan
I BSc Physics
Thiruvathira 1st
Eastern Group Song 3rd



Sivakami
I BSc Physics
Margam Kali 1st



Devika Harinadh
I BSc Physics
Thiruvathira 1st



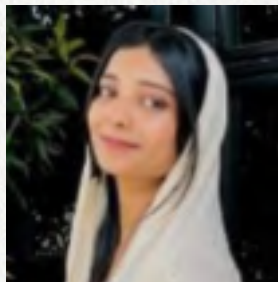
Medha Mayuri
I MSc Physics
Kuchipudi 2nd
Bharathanatyam 3rd



Nila S
II MSc Physics
Kuchipudi 2nd
Short Story Writing 3rd



Riza Fathima
III BSc Physics
Panchavadyam



Fadiya
III BSc Physics
Panchavadyam



Sruthi Lakshmi
III BSc Physics
Rangoli 3rd

RESEARCH PUBLICATIONS 2024-25

High impact scopes indexed publications



Journal of High Energy Astrophysics

Volume 45, March 2025, Pages 418-427



Modelling the energy dependent X-ray variability of Mrk 335

K. Akhila ^a , Ranjeev Misra ^b, Rathin Sarma ^c, Savithri H. Ezhikode ^{d e}, K. Jeena ^a

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<https://doi.org/10.1016/j.jheap.2025.01.014>

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Research article

Electrochemical performance and energy storage capacity of copper sulphide (CuS) nanoparticles obtained by the co-precipitation method

Sobha A ^a , Mariot Jose Panjikaran ^a

Show more

Add to Mendeley Share Cite

<https://doi.org/10.1016/j.nxmte.2025.100634>

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Research in Astronomy and Astrophysics

RESEARCH PAPER

Long Term X-Ray Spectral Variations of the Seyfert-1 Galaxy Mrk 279

K. Akhila, Ranjeev Misra, Savithri H. Ezhikode and K. Jeena

Published 10 June 2024 • © 2024. National Astronomical Observatories, CAS and IOP Publishing Ltd.

[Research in Astronomy and Astrophysics, Volume 24, Number 6](#)

Citation K. Akhila *et al* 2024 *Res. Astron. Astrophys.* **24** 065025

DOI 10.1088/1674-4527/ad4962

JGR Space Physics

Research Article

Solar Wind-Magnetosphere Coupling Efficiency and Its Dependence on Solar Activity During Geomagnetic Storms of 23–24 Solar Cycles

V. M. Ashna✉, Ankush Bhaskar✉, G. Manju, R. Sini

First published: 23 August 2024 | <https://doi.org/10.1029/2023JA031687> | Citations: 1

[Home](#) > [International Journal of Theoretical Physics](#) > Article

Strong Gravitational Lensing and Shadows by Quantum Schwarzschild Black Hole in Homogeneous Plasma

Research | Published: 11 March 2025

Volume 64, article number 76, (2025) [Cite this article](#)



International Journal of Theoretical Physics

[Aims and scope](#) →

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Rukkiyya VP ✉ & Sini R

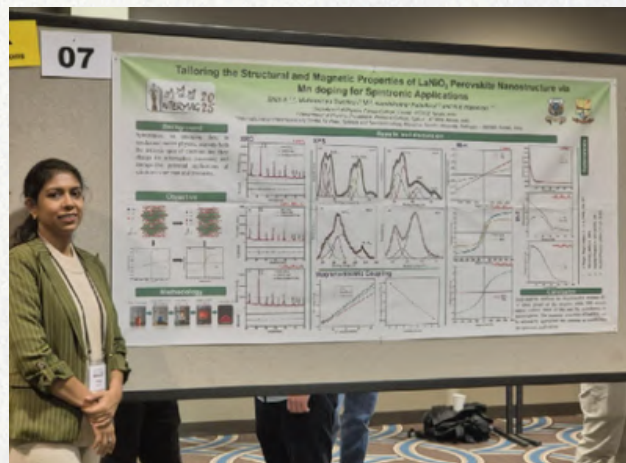
[Access this article](#)

Global Engagement of Faculty and Research Scholar at International Conferences

- **Research Scholar Ashna V M** attended the São Paulo School of Advanced Science on Solar Activity and Space Weather, held at Mackenzie Presbyterian University in São Paulo, Brazil from November 11th to 22nd . The scholar was awarded a grant of R\$ 300,00 per diem for up to 12 days of stay, in addition to coverage of the airfare.
- **Research Scholar Ashna V M** attended and presented paper in 6th URSI-RCRS organized by Aryabhata Research Institute of Observational Sciences (ARIES) and Graphic Era Hill University (GEHU). The conference held at GEHU, Bhimtal from 22nd to 25th October 2024.



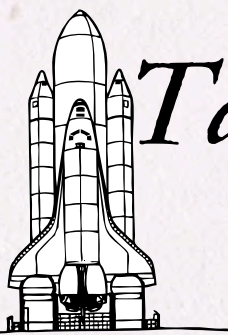
- **Assistant Professor Shija K** presented a poster at the 2025 Joint INTERMAG Conference, held in New Orleans, USA, from January 13 to 17, 2025.



- **Research Scholar Akhila** attended the ICPET-2025: 1st AIP International Conference on Physics & Emerging Technologies, organized by the Association of Indian Physicists (AIP) with Janardan Singh Foundation. The conference was held online from 22nd to 23rd February 2025. The scholar delivered an oral presentation on ‘Long term X-ray variation of Mrk 279.’
- **Research Scholar Akhila** attended the 10th Regional Meeting on Research in Astronomy: Opportunities and Challenges, organized by Cochin University of Science & Technology (supported by IUCAA), held from 31st January to 2nd February 2025. The scholar delivered an oral presentation on ‘Energy dependent X-ray variability of Mrk 335.’
- **Research Scholar Akhila** participated in the Course on Satellite Space Design, organized by the Institute for Advanced Research in Science (IARSc), Bangalore, from October to December 2024. As part of the course evaluation, the scholar gave an oral presentation on ‘X-ray spectral variations of Mrk 279.’
- **Research Scholar Akhila** attended the Thematic Workshop on ‘Space and Climate Change’ organized by VSSC, LPSC, IIST & IIST on 9th October 2024.
- **Research Scholar Akhila** attended the Conference on Blazars and Restless AGN: A High Energy View, organized by Presidency University, Kolkata and IUCAA, held from 24th to 26th July 2024. The scholar delivered a contributed talk on ‘X-ray variability to distinguish Comptonisation & reflection scenarios for the soft excess in Mrk 335.’
- **Research Scholar Akhila** attended the Workshop on Data Science Essentials with Python, organized by the Centre for Training in Research Methods (CTRM), University of Calicut, from 27th to 29th June 2024.
- **Research Scholar Subeesh T P** presented a paper titled ‘Composition Dependent Structural and Dielectric Efficiency of Solgel derived $\text{Ba}_x\text{Zr}_{1-x}\text{TiO}_3$ ceramics in National seminar of Material science conducted by Sacred heart college Ernakulam on 27 & 28 Nov-2024



WORKSHOPS ON ASTRONOMY



Talk on “Basics of Rocket Science”

The Department of Physics, Providence Women’s College, organized an engaging talk on October 4, 2024, at 10:30 AM in Carmel Hall. The session featured Mr. Siju A. K., a distinguished scientist from the Control Actuation System Group at VSSC/ISRO.

Centered around rocketry and space science, the talk covered a wide range of topics that captivated the audience, especially students passionate about aerospace and physics. Mr. Siju provided an in-depth overview of rockets, discussing their parts, construction, and functions, and explained how each component contributes to a successful launch.

Drawing from his experience at ISRO, he shared insights into the launch processes, challenges in rocket development, and the collaborative work culture at the organization. His anecdotes and real-world examples enriched the session, offering students a glimpse into the dynamic world of space exploration.

The event concluded with an interactive Q&A session, where Mr. Siju answered student queries with enthusiasm. Overall, the talk was a great success, leaving the audience informed and inspired.





Radio Astronomy Fundamentals

On October 18, 2024, the Department of Physics, in collaboration with the IUCAA Centre for Astronomy Research and Development, organized a one-day workshop on "Radio Astronomy Fundamentals." The workshop featured interactive lectures by experts in radio astronomy, covering fundamental concepts, applications, and an overview of the Giant Metrewave Radio Telescope (GMRT). A live demonstration of radio signal acquisition using a radio telescope was also conducted, providing participants with hands-on experience.

The event saw the participation of approximately 52 graduate and postgraduate students from neighboring colleges. Distinguished resource persons for the workshop included Dr. Mathew George, Assistant Professor, S.H. College, Thevara; Dr. Joe Jacob, Associate Professor (Retd.), Newman College, Thodupuzha; Mr. Sudheesh T. P., Research Scholar, Christ (Deemed to be University); and Dr. Biju K. G., Associate Professor, WMO College, Muttill.

An interactive session, facilitated by Dr. Joe Jacob, was also organized to engage students in discussions about research opportunities in the field of radio astronomy. The workshop was highly informative and well-received by all participants.





Talk on Milky Way Galaxy

A session on "The Milky Way Galaxy" was delivered on December 11, 2024, by Prof. Dhruv J. Saikia, a renowned astrophysicist and former Head of NCRA-TIFR. The event was hosted by the IUCAA Centre for Astronomy Research and Development (ICARD). Prof. Saikia's talk delved into various aspects of our galaxy, offering valuable insights into current astronomical research. The session provided an excellent opportunity for students to deepen their understanding of astrophysics and learn from a highly esteemed expert in the field.





One Day Seminar on Radio Astronomy

The IUCAA Centre for Astronomy Research and Development (ICARD), based in the Department of Physics at Providence Women's College, Kozhikode, organized a one-day seminar on Radio Astronomy on March 14, 2025. As the second in an ongoing series, the event aimed to foster interest in radio astronomy among postgraduate and engineering students, as well as junior research scholars from various colleges and universities across Kerala.

The seminar focused on raising awareness about research opportunities in radio astronomy and introducing students to India's Giant Metrewave Radio Telescope (GMRT) for effective academic use. The program included interactive lectures by leading experts and a live demonstration of a radio antenna in operation.

Around 45 participants, including graduate and postgraduate students from nearby institutions, attended the seminar. The resource panel featured Prof. C. H. Ishwara Chandra (NCRA-TIFR), Dr. Mathew George (Assistant Professor, S.H. College, Thevara), Mr. Sudheesh T. P. (Research Scholar, Christ [Deemed to be University]), and Dr. Biju K. G. (Associate Professor, WMO College, Muttill).

The seminar concluded with an interactive session led by Prof. Ishwara Chandra, highlighting career opportunities in astronomy and encouraging students to pursue research in the field.



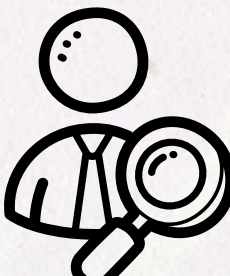
One day seminar on
Radio Astronomy
For UG & PG students
14 MARCH 2025

Speakers

Prof. C. H. Ishwara Chandra Dean, GMRT Observatory NCRA-TIFR, Pune	Dr. Nayana A. J. Post-doctoral Scholar University of California
Dr. Biju K. G. Asso. Professor WMO College	Dr. Mathew George Asst. Professor Sacred Heart College (Autonomous)
Dr. Joe Jacob IUCAA Associate	Mr. Sudheesh T. P. Research Scholar, CHRIST University

IUCAA Centre for Astronomy Research & Development (ICARD)
PG & Research Department of Physics
Providence Women's College (Autonomous), Kozhikode
Send your queries : icardpwc@gmail.com

Add on and Skill Courses with Industry



Employability & Skill Development Program

Department of Physics, in collaboration with Mahindra Pride Classroom and the Naandi Foundation, conducted a six-day intensive training program from December 11 to 17, 2024, aimed at enhancing students' career readiness and employability skills. Led by Ramshad Sir, the program featured 36 hours of interactive sessions covering life skills, communication, interview preparation, and problem-solving.

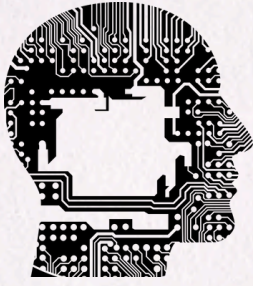
Key Focus Areas:

- **Life Skills:** Confidence building, teamwork, and problem-solving (I Am Unique, Critical Thinking, Problem Solving).
- **Communication Skills:** Professional communication, digital identity, and career-oriented English.
- **Interview Preparation:** Mock interviews, resume building, group discussions, and job opportunities.
- **Soft Skills & Career Readiness:** Body language, professional ethics, time management, and project presentation.
- **Final Assessment:** Art of Speaking session to evaluate progress.

Outcome & Impact:

- Students gained confidence in communication and interview skills.
- Improved presentation abilities and workplace readiness.
- Positive feedback on the practical approach and real-world applications.





ICT Academy add on course on Artificial Intelligence and Machine learning

A five-day specialized training program was conducted by the ICT Academy of Kerala from 12th to 16th December 2024 at UL Cyber Park. The workshop aimed to equip students with essential skills in Artificial Intelligence and Data Science, and saw the active participation of 32 students.

The training covered key areas including:

- Python for Scientific Computing & Data Analysis – Basics of programming, data handling, and visualization using libraries like NumPy and Pandas.
- Machine Learning Concepts & Applications – Introduction to supervised and unsupervised learning, model building, and evaluation.
- Data Science & Analytics – Statistical methods, predictive analytics, and real-world case studies.

Students gained hands-on experience, learning to analyze, organize, and interpret data effectively. The sessions combined theory with practical exposure, helping participants build a strong foundation in this fast-growing field.



Python Programming Internship

Students from the Physics Department participated in a 1 month internship program on Python Programming, which featured a 5-day interactive session held at CyberPark, Calicut, starting from May 5th. The program was designed to build both foundational and advanced technical skills aligned with modern computational practices.

The first two days covered Python fundamentals, including syntax, variables, control structures, functions, and essential data structures like lists, tuples, and dictionaries. These sessions were hands-on, reinforcing key concepts through practical activities. The following three days focused on advanced topics such as Object-Oriented Programming (OOP), file handling, and data manipulation. Simultaneously, participants received MySQL training, which included database design, CRUD operations, and integrating Python with MySQL using the mysql-connector-python library.

The internship concluded with a workshop by Google team members, showcasing real-world applications of Python in AI, machine learning, and cloud computing. The session included a live demo on deploying Python apps using Google Cloud, along with valuable career guidance.

The program significantly enhanced students' skills in Python programming, database management, and the use of industry-relevant tools, effectively bridging the gap between theoretical learning and practical implementation.



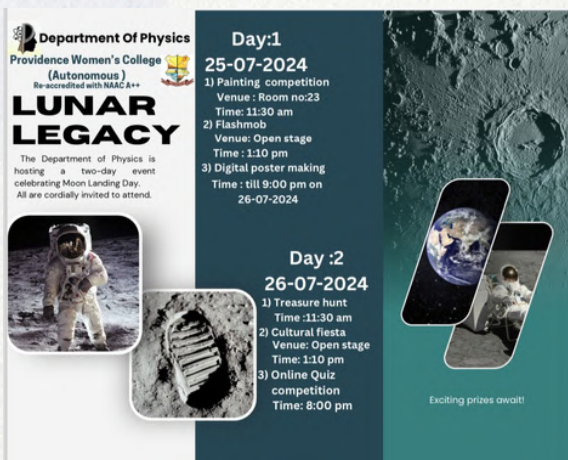
Physics Association Activities



Moon Landing Day

To honor the historic achievement of the first human moon landing, Department of Physics organized a two-day celebration featuring a variety of events aimed at engaging students and fostering interest in space science. The events included:

- **Painting Competition:** Participants created artistic interpretations of lunar exploration, space missions, and the significance of the Apollo 11 landing.
- **Digital Poster-Making Competition:** Students designed digital posters highlighting key moments in space history, future space missions, and scientific advancements.
- **Online Quiz:** A virtual quiz tested participants' knowledge of the moon landing, space history, and astronomy.
- **Flash Mob:** A surprise performance at the open stage captivated the audience and sparked enthusiasm for space-related discussions.
- **Cultural Fiesta & Treasure Hunt:** The second day featured a cultural showcase with performances inspired by space exploration, along with an exciting treasure hunt across campus, making the celebration a grand success.



Department Of Physics
Providence Women's College
(Autonomous)
Re-accredited with NAAC A++

LUNAR LEGACY

The Department of Physics is hosting a two-day event celebrating Moon Landing Day. All are cordially invited to attend.

Day:1
25-07-2024

- 1) Painting competition
Venue: Room no:23
Time: 11:30 am
- 2) Flashmob
Venue: Open stage
Time: 1:10 pm
- 3) Digital poster making
Time: till 9:00 pm on 26-07-2024

Day :2
26-07-2024

- 1) Treasure hunt
Time :11:30 am
- 2) Cultural fiesta
Venue: Open stage
Time: 1:10 pm
- 3) Online Quiz competition
Time: 8:00 pm

Exciting prizes await!



Department Of Physics
PROVIDENCE WOMEN'S COLLEGE
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LUNAR LEGACY

Digital Poster Making Competition

On 25-07-2024
Last date: 26-07-2024 at 9pm
Topic: Related To moon

Moon Landing Day Celebration

Send To: 7907246095



Department Of Physics
PROVIDENCE WOMEN'S COLLEGE
(AUTONOMOUS)
Re-Accredited with grade A++ by NAAC

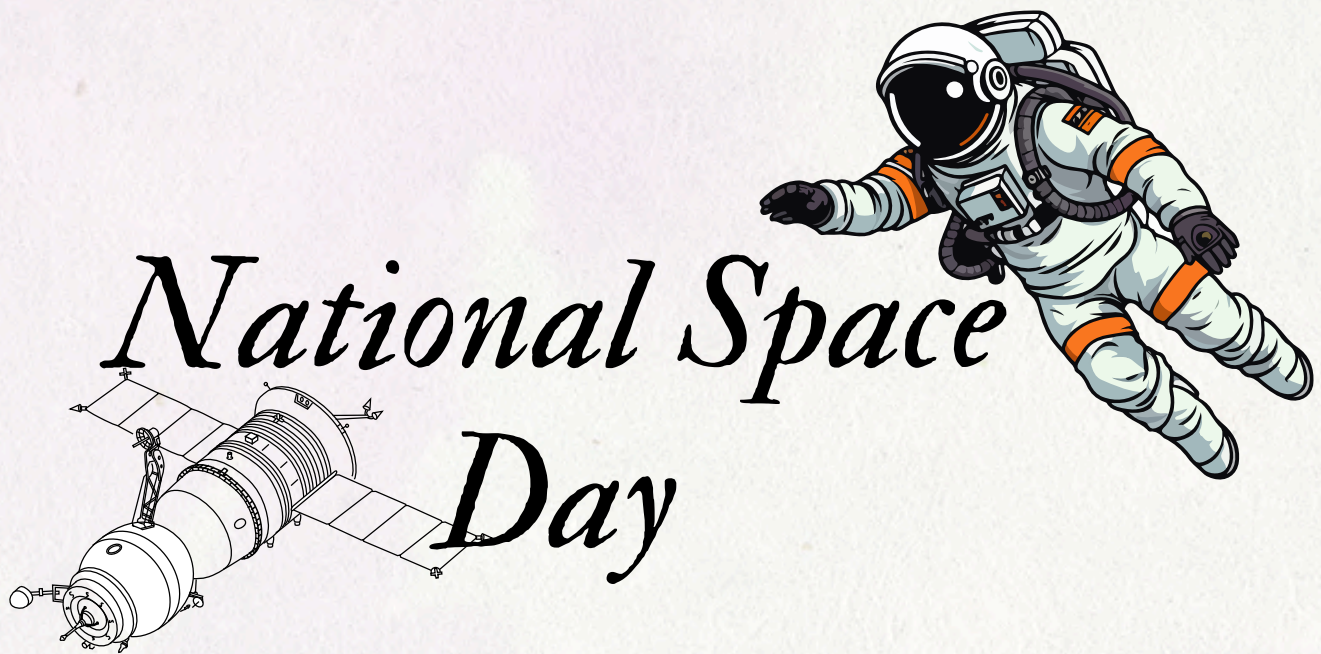
LUNAR LEGACY

ONLINE QUIZ COMPETITION

Moon Landing Day Celebration
Day 02

On 26-07-2024 At 8:00Pm





National Space Day

Department of Physics celebrated National Space Week with a series of engaging events designed to raise awareness about space exploration, technology, and astronomy. The celebrations began on August 9, observed as National Space Day, and continued throughout the week with interactive sessions, competitions, and outreach activities. Key highlights included:

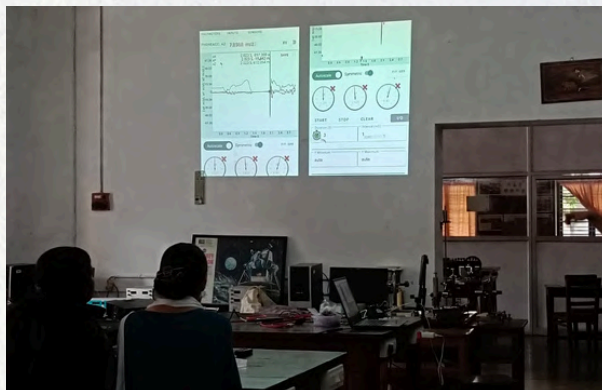
- **Essay Writing, Painting, and Quiz Competitions:** Participants expressed their thoughts on the future of space exploration, human settlements on Mars, and technological advancements in astronomy.
- **Flash Mob at Open Stage:** A lively flash mob performance drew attention to the importance of space exploration and the role of scientific curiosity in shaping the future.
- **Outreach Activities at Christuraja A.L.P. School, Malaparamba:** A quiz competition and a painting contest were conducted for school students, extending the celebration beyond the campus and promoting space education in the broader community.
- **Expert Session: “Basics of Rocket Science” by Mr. Siju A.K scientist at VSSC/ISRO:** The session received excellent feedback and successfully inspired students to explore the field of aerospace engineering and astrophysics.



ExpEYES Workshop

As part of a university-level outreach initiative, the Department of Physics, University of Calicut, organized a one-day hands-on workshop at Providence College on 30th August 2024, led by resource persons Muhammad Shibil, Nihal Muhammad, and Jithin B P. This workshop was part of a series of six conducted across various colleges, with the objective of providing students practical exposure to the newly introduced experiments under the Four-Year Undergraduate Program (FYUGP) syllabus.

Participants received hands-on training using advanced microcontroller-based kits such as Seelab-3.0 and ExpEYES-17, which enabled quick data acquisition through sensor-based experiments operable via mobile phones. A total of 30 experimental kits were brought in to facilitate active student engagement and experiential learning. The initiative aimed to enhance experimental skills and bridge the gap between theoretical knowledge and practical application, in alignment with the goals of the FYUGP curriculum.



Association Inauguration - Bhauthik

The Physics Association was officially inaugurated on January 1, 2025, at 11:30 AM in MV Hall, marking the beginning of an exciting new chapter for the department.

The event was honored by Dr. Randeep N.C., Assistant Professor, Government Arts and Science College, Calicut, who delivered the keynote address. He emphasized the significance of physics in shaping the world and commended the association's initiatives.

Dr. Sini, Head of the Department, delivered the inaugural address, outlining the association's vision, mission, and objectives while highlighting the importance of teamwork and collaboration in achieving its goals.

Office Bearers 2024-25

The newly appointed office bearers were introduced during the event:

- **Association Secretary:** Sivapriya C.K.
- **Magazine Editor:** Aleena Akhilesh
- **Career Guidance Cell Leaders:** Gayathri Sunil and Anusree K.M

Following the inauguration, Dr. Randeep conducted a session on Quantum Teleportation, an intriguing phenomenon that continues to drive research in quantum mechanics and quantum information science.

The inauguration marked a significant milestone for the Department of Physics, setting the stage for a productive and inspiring year ahead.



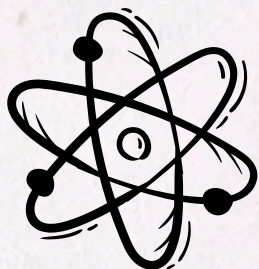
Alumna Interaction

On 8th January 2025, an inspiring alumna interaction session was held in the 3rd BSc Physics classroom, featuring Ms. Anju Sebastian, a PhD scholar at the University of Caen Normandy, France. A proud alumna of our department, Ms. Anju shared her academic journey—from completing her post-graduation in Oceanology at CUSAT to her professional stint at the Indian National Centre for Ocean Information Services (INCOIS), and eventually pursuing doctoral research in France.

The session was aimed at motivating current students to explore academic opportunities beyond national boundaries. Ms. Anju spoke in detail about the process of applying to universities in France, the documents and preparations involved, and how she navigated the challenges along the way. She also offered practical advice on scholarship applications, language requirements, and adjusting to life abroad.

What made the interaction particularly impactful was the relatability and authenticity of her story. As someone who once sat in the same classrooms, her journey served as a powerful reminder of what determination and clarity of purpose can achieve. The session left students feeling encouraged and inspired to aim higher in their academic pursuits and to consider global opportunities with greater confidence.





National Seminar and PG Fest Sastra 2k25

The Physics Department of our college successfully hosted the much-anticipated intercollegiate science fest, SASTRA 2025, on the 27th and 28th of February 2025. The two-day event witnessed enthusiastic participation from various colleges across Kerala, making it a vibrant platform for scientific exploration, creativity, and knowledge sharing.

The fest was inaugurated by Dr. Muhammad Shahin Thayyil, Head of the Physics Department, University of Calicut. The inaugural ceremony set the tone for the fest, emphasizing the importance of interdisciplinary learning and scientific curiosity. As part of the inaugural day, we were privileged to host a guest talk by our distinguished alumna, Ms. Meera, currently a Project Scientist at the University of Hyderabad. She delivered an insightful session on "Monsoon and Teleconnections", shedding light on the complex interplay between climate systems and their far-reaching impacts.

SASTRA 2025 featured a diverse range of competitions that tested both scientific knowledge and creative skills. The events included:

- Meme Creation
- Poster Making
- Photography Contest
- Coding (Break the Code)
- Akinator
- Quiz
- Debate
- Treasure Hunt
- Escape Room
- Advertisement Creation (Adzap)

Alongside these competitions, a Game Zone was set up to offer interactive and fun-filled games, adding a lively dimension to the fest.

The second day of the fest was marked by an engaging talk by Dr. Vaisakhan Thambi, Assistant Professor at Mahatma Gandhi College, Thiruvananthapuram, on the intriguing topic "From Test Tubes to Tinder: Understanding Life Through Science". The session captivated the audience by exploring the intersections of science and everyday life, blending humor with thought-provoking insights.

The overwhelming participation and positive feedback from attendees made SASTRA 2025 a resounding success. The event not only fostered scientific temper but also created a platform for students to showcase their talents and exchange ideas. We look forward to organizing more such events that continue to inspire young minds and promote a passion for science.



PROVIDENCE WOMEN'S COLLEGE (AUTONOMOUS)
RE-ACCREDITED WITH A++ BY NAAC
DBT STAR COLLEGE

DEPARTMENT OF PHYSICS
Presents
SASTRA 2K25

Star Follower
Prize winner



RIZA NAHAM V M
2nd BA Economics
Providence Women's College

Congratulations

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Department of Physics
SASTRA 2K25

PHOTOGRAPHY CONTEST
Prize Winner

Congratulations




Megha KM
(2nd yr B.Com)
Providence Women's College

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Presents
SASTRA 2K25

MEME CREATION



Sidhartha Arun
(2ND YEAR BCA)
St. Xavier's College, Calicut

Congratulations

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SASTRA 2K25

Poster Making Competition
Prize winner



ANAS GEORGE
(2nd year BSc Physics)
RSM SNP YOGAM COLLEGE, KOYILANDY

Congratulations

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Department of Physics
Presents
SASTRA 2K25

AKINATOR

PRIZE WINNER
Congratulations



NIDA V.T
(1st year BA English)
PROVIDENCE WOMEN'S COLLEGE

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ONLINE EVENTS

- Photography
- Poster Making
- Akinator
- Reel Making
- Meme Creation
- Star Follower

Participate and showcase your skills for a chance to claim victory and amazing rewards.

OUR SPONSORS



CONTACT US

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Student Convenors
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Nilu S - 9605415212

sastra2k25@gmail.com
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Department of Physics
Presents
SASTRA 2K25

National Seminar and
Intercollegiate Academic Fest



27,28 FEBRUARY 2025

PROVIDENCE WOMEN'S COLLEGE,
MALAPARAMBA, CALICUT

SASTRA 2K25, an intercollegiate Physics fest conducted by Department of Physics, Providence Women's College, is aimed to give the students an opportunity to increase their Scientific temper through interactive sessions, Quiz and other Science games.

We invite you to join us in this venture to be held on 27-28 February 2025 at Providence Women's College, Calicut. It's great pleasure to inviting the students of your institution to participate in SASTRA 2K25.

We are looking forward to your kind cooperation.

Dr.Sini R
Head of the department, Physics

DAY 1
27 FEB 2025

9:00 AM - Registration
10:00 AM - Inaugural Ceremony

Inauguration: Dr. Mohamed Shubin Tharyil
Professor of Physics,
Department of Physics,
University of Calicut, Thiruvananthapuram

Invited Talk: Meera M Nair
Project Scientist & CEO,
University of Madras

12:30 PM - Lunch Break
1:30 PM - Debate
(Sponsored by Vettath Foundation)
Break the Code
(Sponsored by Vettath Foundation,
Co-ordinated by ICT Academics)

3:00 PM - Treasure Hunt
(Sponsored by Endesa Academy)

10:30 AM - 4:30 PM
Game Zone
(Sponsored by Vettath Foundation)
Virtual Reality Show
(Coordinated by Vettath)

DAY 2
28 FEB 2025

9:00 AM - Registration
9:30 AM - Quiz
(Sponsored by Vettath Foundation)

10:00 AM - Adzap
11:30 AM - Escape Room
1:00 PM - Lunch Break

2:00 PM
Invited Talk: "From Text to Understanding
Life through Science" by
Dr.Vaishakan Thampi
Associate Professor
Mahatma Gandhi College, Thiruvananthapuram

4:00 PM - Valedictory function
(Certificates Sponsored by Cure You Medical Centre)

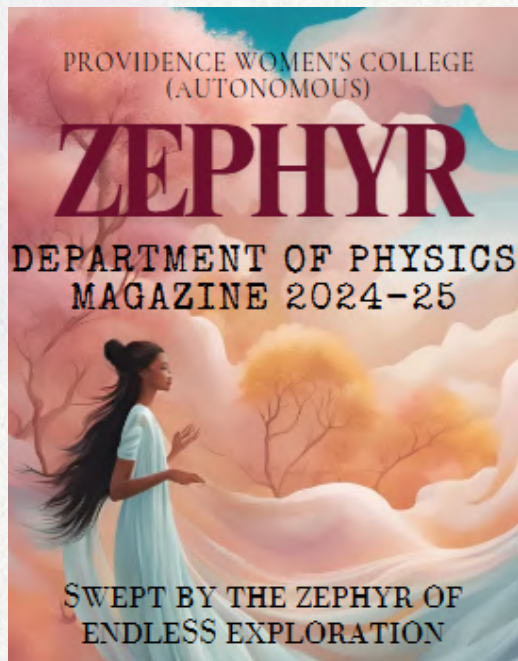


Association Valedictory & Magazine Release

The Department of Physics hosted its Association Valedictory and Magazine Release on 21 March 2025. The event was inaugurated by Ms. Shyama, esteemed faculty member from the Department of English. This occasion held special significance as it also served as a heartfelt tribute to Ms. Shyama, who will be retiring this year after her dedicated service.

Ms. Shyama also had the honour of releasing the annual department magazine, "Zephyr". The editor, Aleena Akhilesh, introduced the magazine by highlighting its theme, the origin of its name, and the collective efforts and contributions that went into its creation. Zephyr, meaning a gentle breeze, metaphorically represents the invisible yet impactful forces in physics—subtle, often unseen, but powerful in shaping the world around us.

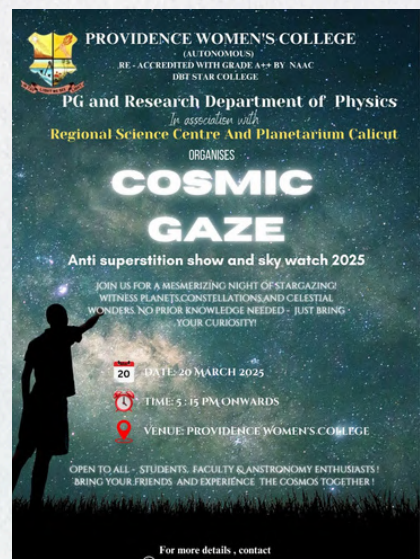
Following the release, the department celebrated the achievements of its students over the academic year. GATE and JAM qualified students were recognized and awarded for their accomplishments. Awards were also presented to students who demonstrated outstanding academic excellence and excelled in co-curricular activities, marking the occasion as one of celebration and encouragement.



Anti Superstition Show and ✦ ✦ Skywatch Event

On March 20, 2025, a thought-provoking demonstration-cum-lecture on "Anti-Superstition" was organized by the Department of Physics in collaboration with the Regional Science Centre & Planetarium, Calicut — a unit of the National Council of Science Museums. The session aimed to dispel irrational beliefs through engaging scientific demonstrations and critical discussions.

The program was followed by a skywatch event titled "Cosmic Gaze," where participants had the opportunity to observe celestial objects under expert guidance, fostering scientific curiosity and awareness.





Until We Meet Again: A Heartfelt Farewell

On 12th March 2025, the juniors of the Department of Physics came together to bid a warm and heartfelt farewell to their beloved seniors. The event was a beautiful celebration filled with laughter, emotions, and memories. Juniors made the occasion special by pampering their seniors with delicious food, vibrant dance performances, melodious songs, and fun-filled games that brought joy and nostalgia in equal measure.

As the evening unfolded, the outgoing students shared their journeys—reminiscing about their time at Providence College, their academic and personal growth, the bonds they formed, and the unforgettable moments spent with friends and teachers. Their reflections were touching and sincere, painting a vivid picture of how much their years in the department meant to them.

Teachers also took the opportunity to share words of encouragement and best wishes for the seniors as they prepare to step into the next chapter of their lives. The farewell was more than just a goodbye—it was a celebration of everything the seniors had become, and a warm send-off as they embark on new adventures and embrace the opportunities ahead.





INDUSTRIAL VISITS

Indian National Centre for Ocean Information Services, Hyderabad

The Department of Physics organized an industrial visit on February 9, 2025, to the Indian National Centre for Ocean Information Services (INCOIS), Hyderabad—an autonomous body under the Ministry of Earth Sciences. The visit aimed to provide students with practical exposure to oceanographic and atmospheric sciences, enriching their academic and research outlook.

The visit began with an introductory briefing and an interactive panel discussion, offering insights into INCOIS's pivotal role in ocean information services, early warning systems, and marine research. The students were introduced to major programs such as the Indian Tsunami Early Warning System, Ocean State Forecasting, and Potential Fishing Zone (PFZ) advisories.

Participants were given a guided tour of various departments and labs. They engaged with advanced oceanographic equipment including Argo floats, drifting buoys, Autonomous Underwater Vehicles (AUVs), Inherent Optical Properties Profilers, Acoustic Doppler Current Profilers, and satellite-based ocean observation systems. A live demonstration of the tsunami early warning center highlighted INCOIS's rapid-response capabilities and use of seismic and GNSS networks for disaster management.

The visit also emphasized the academic and career relevance of oceanographic technologies, remote sensing, AI-driven modeling, and data science. Students gained exposure to real-time data analysis, ocean forecasting, GIS applications, and climate impact studies. Opportunities for research, higher education, and careers in organizations such as INCOIS, ISRO, IMD, and NIOT were also discussed.

Overall, the visit provided valuable insights into marine sciences and fostered a deeper interest in scientific research and innovation.

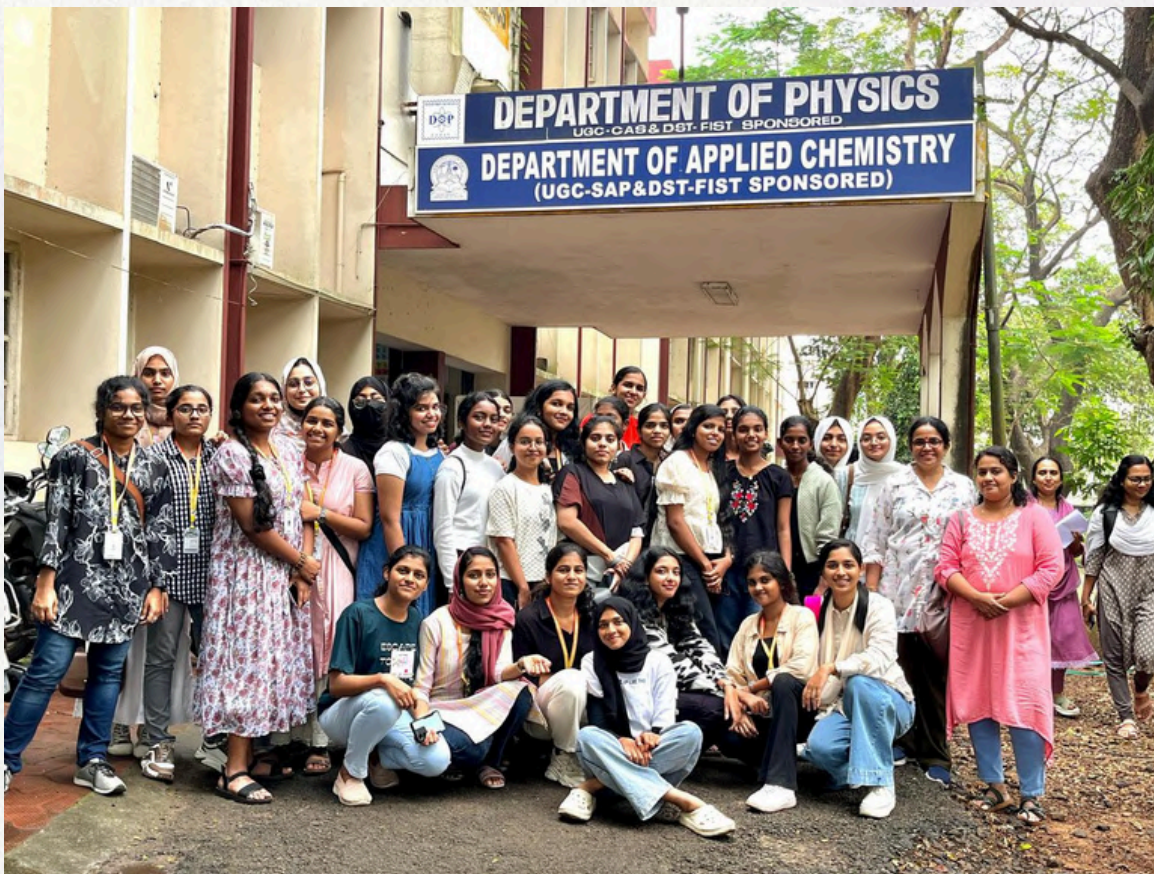


Cochin University of Science & Technology

On 12th December 2024, 30 first-year FYUGP Physics students from our college, accompanied by Dr. Sobha and Dr. Sini, attended the Open House organized by the Department of Physics, CUSAT.

The program began with an insightful session on advanced research areas such as attosecond pulses, quantum mechanics, photonics, astrophysics, and materials science. Following the talk, students visited various research labs and explored high-end characterization instruments including vacuum coating units, XRD, lasers, and spectrometers. They also observed demonstrations and exhibitions of fundamental physics concepts.

The visit sparked great enthusiasm among the students, deepening their interest in scientific research and exposing them to the real-world applications of physics.



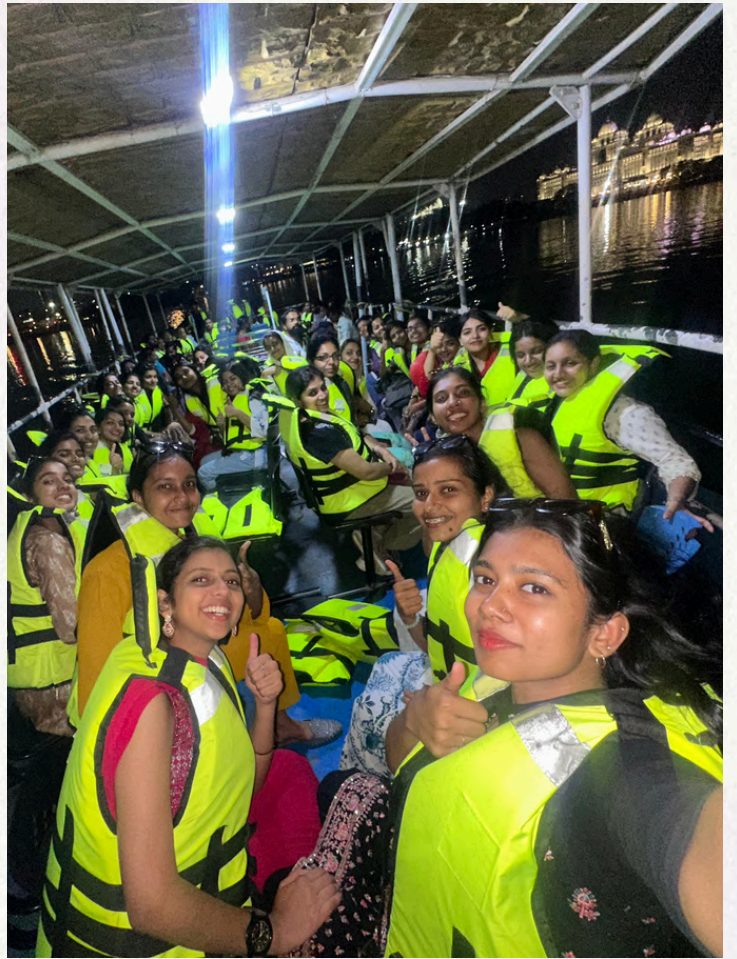
College Trips: Exploring, Learning, Experiencing

Hyderabad Diaries: The Final-Year Experience

The final year BSc Physics students embarked on a memorable class trip to Hyderabad—an experience that will surely remain etched in their hearts as one of the highlights of their college life. Guided and accompanied by their class tutors, Dr. Siji and Dr. Aswathi, the trip offered a perfect blend of cultural exploration, historical discovery, and shared joy. Over the course of their journey, students visited some of Hyderabad's most iconic landmarks including the Charminar, Chowmahalla Palace, Salar Jung Museum, Birla Mandir, Mecca Masjid, Ramoji Film City, Snow World, and many more attractions.

Beyond sightseeing, the trip was filled with laughter, shopping sprees, local delicacies, countless photographs, and unforgettable moments spent with friends. It was not just a break from the classroom routine, but a celebration of friendship, togetherness, and the closing chapter of their undergraduate journey. This final trip stands as a cherished experience, marking both an end and a new beginning for the students of the outgoing batch.





Mumbai Moments: A Memorable Journey by MSc Physics



