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**Women's
Christian
College**

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ACADEMIC ACTIVITIES

2024-2025

**POST GRADUATE DEPARTMENT OF
PHYSICS**



POST GRADUATE DEPARTMENT OF PHYSICS

ACTIVITIES: 2024 – 2025

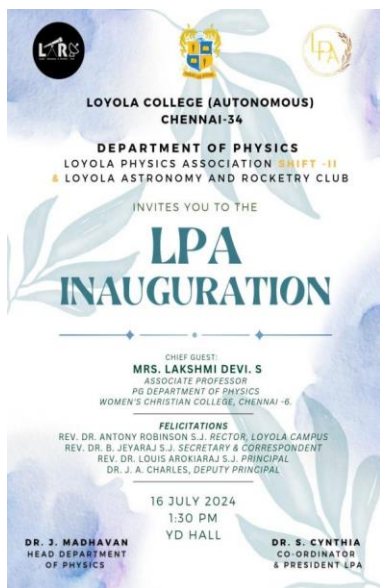
(Conferences, Seminars, Webinars, Workshops, Industrial Visits, Field Trips, Talks, Campaigns, etc.)

1. **Bertleja S, Celcia S and Swetha Raja. R of II M.Sc. Physics** attended INUP-i2i workshop on Nanoelectronics and Nanophotonics at IIT Madras (08/07/2024 to 10/07/2024).

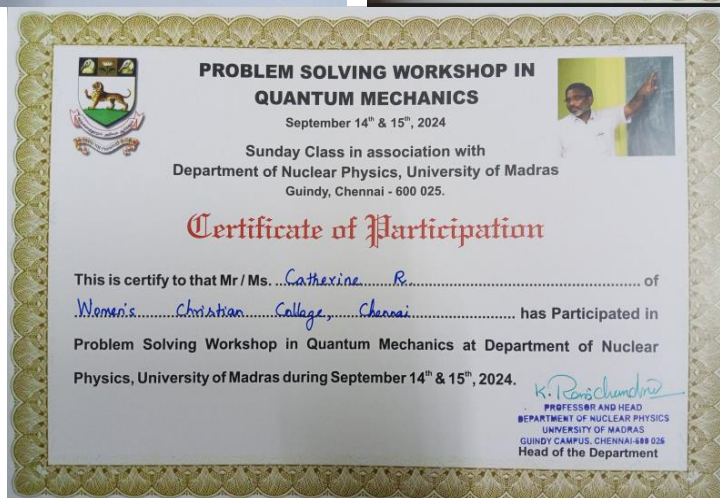
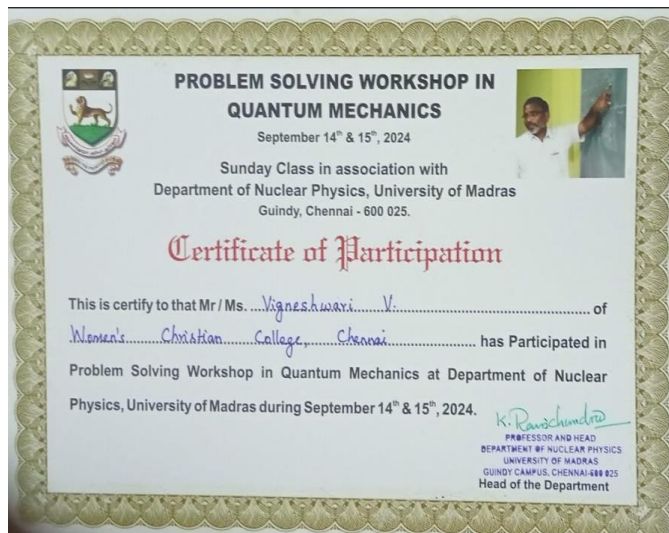
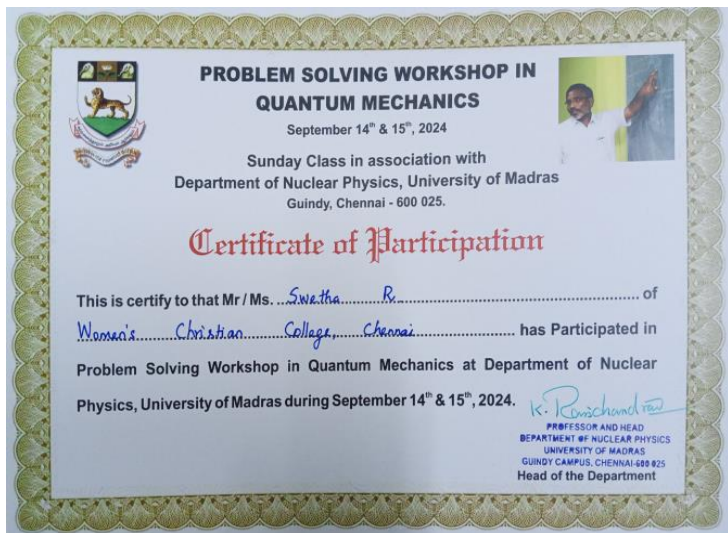




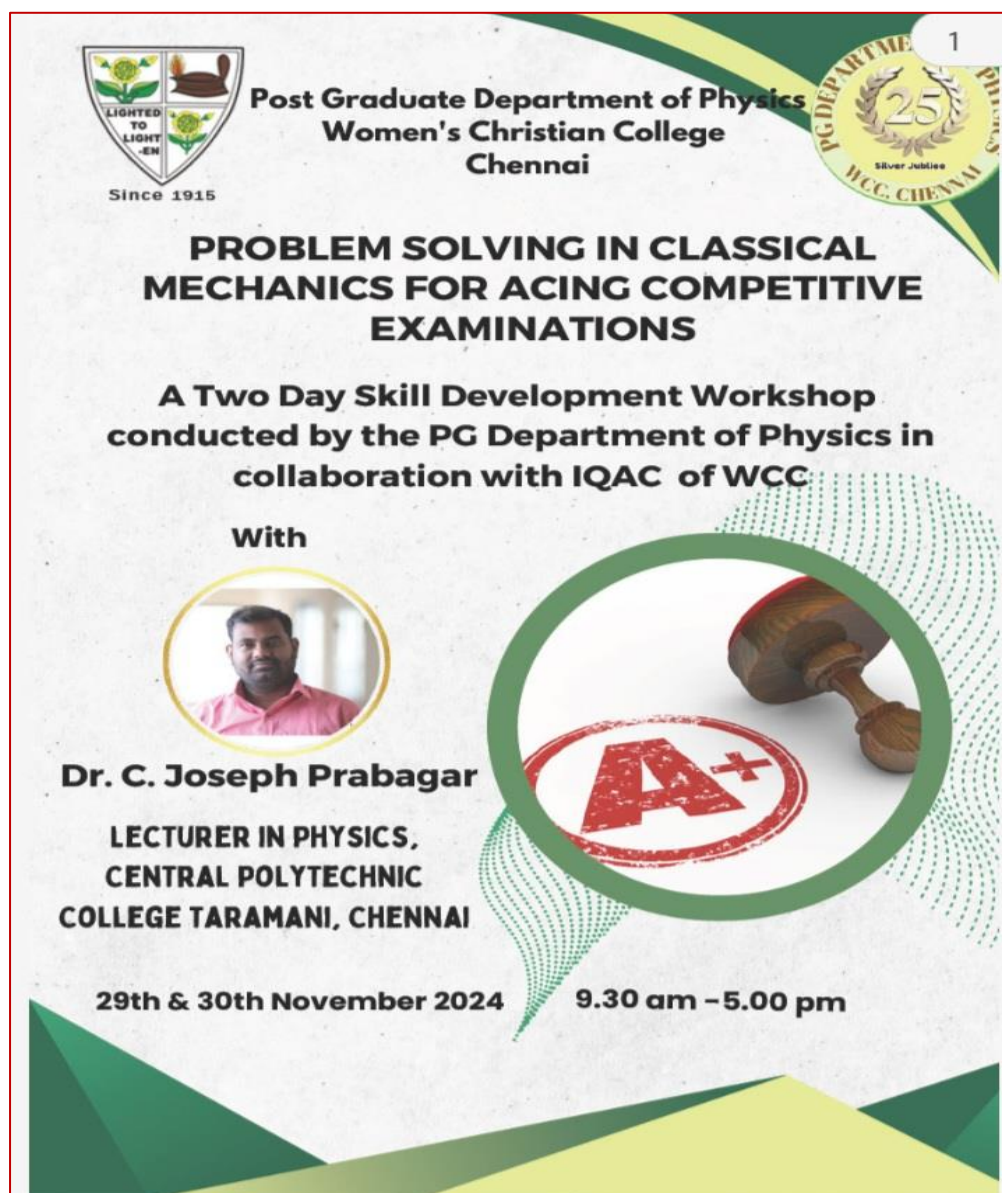
2. **Ms. Lakshmidevi S**, Associate Professor, PG Department of Physics was the **Chief guest for the Loyola Physics Association Inauguration of the Department of Physics, Shift2 - Loyola college on 16th July 2024.**



3. **Vigneshwari V, Swetha Raja R, Swetha Ranganathan and Catherine R of II M.Sc. Physics** attended Problem solving in quantum at Madras University, Nuclear physics Department from 14/09/2024 and 15/09/2024



4. The department organized a **two-day skill development workshop in collaboration with IQAC, WCC.** Dr. C. Joseph Prabagar, Lecturer in Physics, Central Polytechnic College, Taramani, Chennai conducted “**Problem Solving in Classical Mechanics for Acing Competitive Examinations**” on 29th November and 14th December 2024. 47 students from I and II M.Sc Physics and the faculty of the department were present. The workshop covered problem solving in various topics of NET syllabus in classical mechanics. The students appreciated the effort of the department as many were interested to appear for NET examination.





5. UG and PG Department of Physics organized an Online Collaborative Workshop with National Taiwan Normal University, Taipei on 3rd December 2024. Professors from NTNU delivered insightful invited talks online, sharing their expertise and research findings with participants. Their presentations covered various advanced topics in physics, fostering academic collaboration and knowledge exchange between the institutions. Additionally, **Ms. Bency Mary B, Ms. Grace Jerry S and Ms. Sheryl Rachel Irene from II M.Sc. Physics (2023 Batch)** delivered oral presentations.







ONLINE COLLABORATIVE WORKSHOP



Organised by
**UG AND PG DEPARTMENT OF PHYSICS, WCC AND
NATIONAL TAIWAN NORMAL UNIVERSITY, TAIPEI**

This is to certify that **Ms. BENCY MARY B** has presented a paper on **Zn-Al Layered Double Hydroxide Intercalated with 5-Fluorouracil and Doxorubicin: A Targeted Therapy for Cervical Cancer (HeLa Cells) and Colon Cancer (HCT116 Cells)** held on 3rd December, 2024 at Women's Christian College, Chennai.

Ting-Hua Lu

Prof. Ting-Hua Lu
Chairperson, Department
of Physics, NTNU

Christina

Dr. A Christina Nancy
Head, UG Department
of Physics, WCC

K. Meera

Dr. K. Meera
Head, PG Department
of Physics, WCC



ONLINE COLLABORATIVE WORKSHOP



Organised by
**UG AND PG DEPARTMENT OF PHYSICS, WCC AND
NATIONAL TAIWAN NORMAL UNIVERSITY, TAIPEI**

This is to certify that **Ms. GRACE JERRY S** has presented a paper on **Investigations on the gas sensing potential and antimicrobial efficiency of metal oxide nanocomposites** held on 3rd December, 2024 at Women's Christian College, Chennai.

Ting-Hua Lu

Prof. Ting-Hua Lu
Chairperson, Department
of Physics, NTNU

Christina

Dr. A Christina Nancy
Head, UG Department
of Physics, WCC

K. Meera

Dr. K. Meera
Head, PG Department
of Physics, WCC



ONLINE COLLABORATIVE WORKSHOP



Organised by
**UG AND PG DEPARTMENT OF PHYSICS, WCC AND
NATIONAL TAIWAN NORMAL UNIVERSITY, TAIPEI**

This is to certify that **Ms. SHERYL RACHEL IRENE S** has presented a paper on **Leaf-like g-C₃N₄ photonic crystal hydrogel for photocatalytic application** held on 3rd December, 2024 at Women's Christian College, Chennai.

Ting-Hua Lu

Prof. Ting-Hua Lu
Chairperson, Department
of Physics, NTNU

Christina

Dr. A Christina Nancy
Head, UG Department
of Physics, WCC

K. Meera

Dr. K. Meera
Head, PG Department
of Physics, WCC

6. **Dr. K. Meera** participated in the Service-Learning Workshop organized by WCC (Bethel Agricultural Fellowship visit to Salem on 9th January 2025).



Conference Presentations:

7. **Vigneshwari V** won the **Best paper presentation** in the **International Conference on Emerging materials (ICEM 2025)** on the 23th and 24th January 2025 at Loyola College.

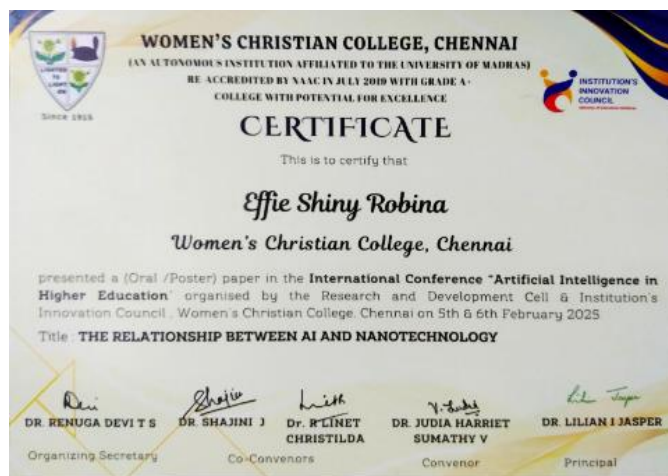
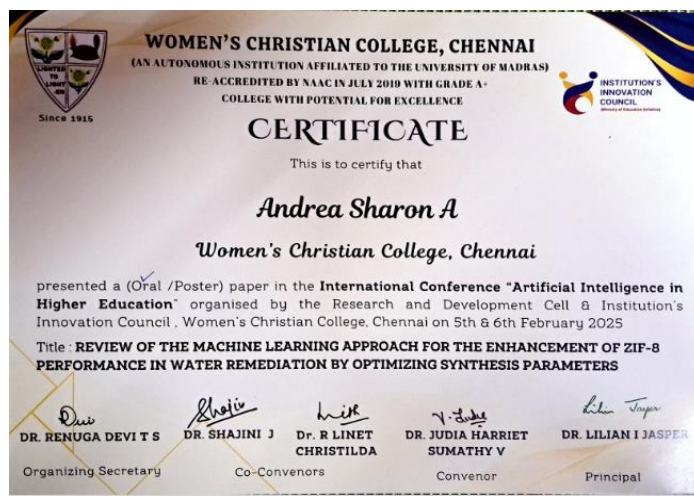
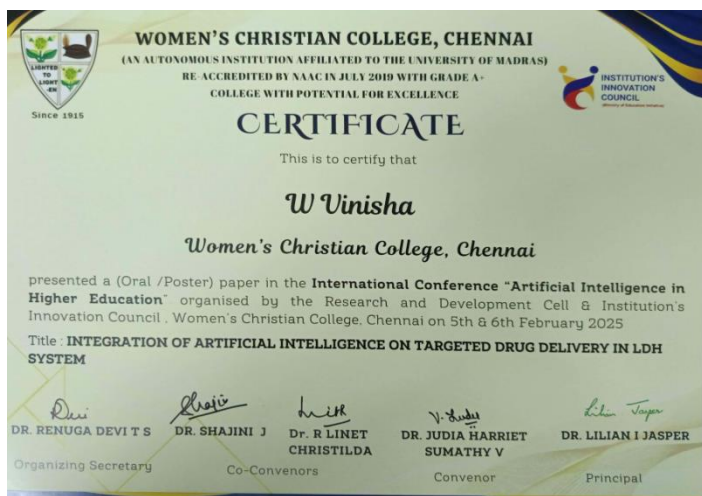
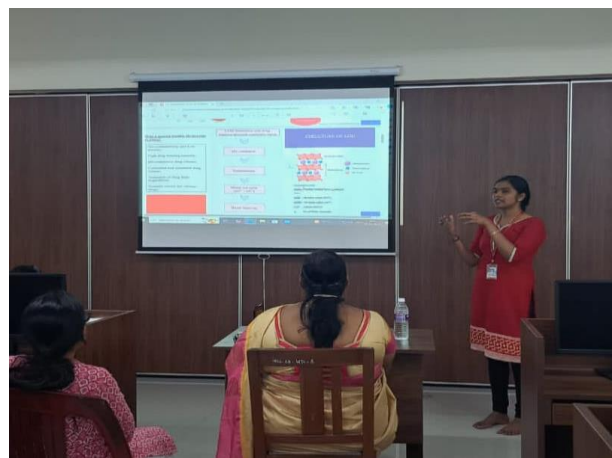
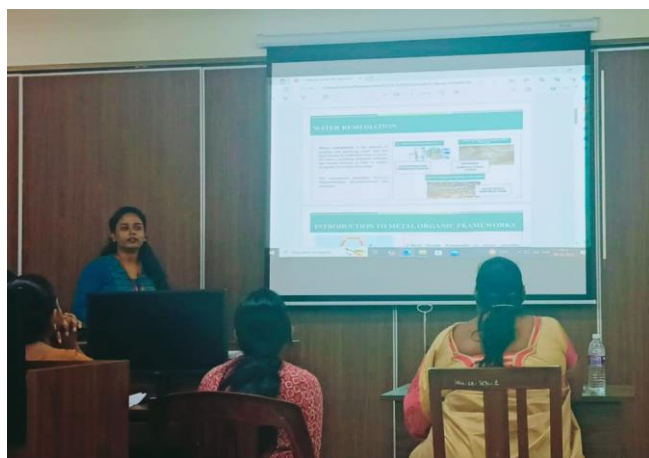




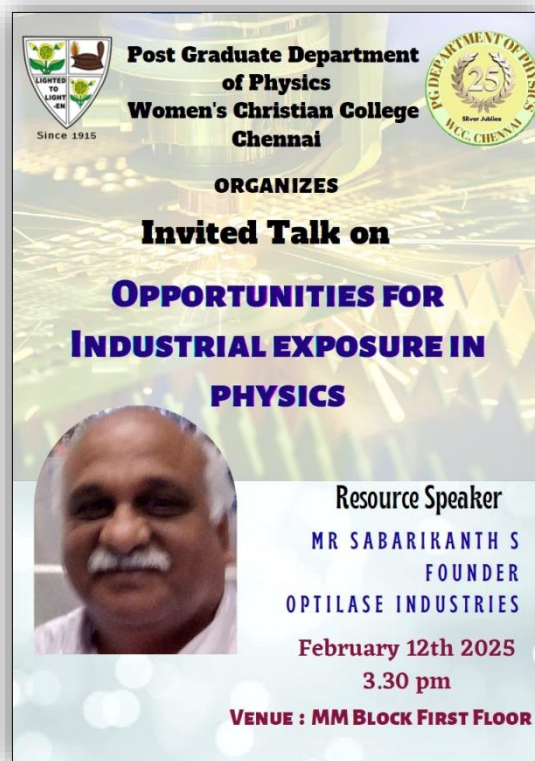
8. **Effie Shiny Robina** won the **Best poster presentation** in the **International Conference on Sustainability in Life Science: Environmental Economic and Social Impacts (SUSLIFE 2025)** on the 29th and 30th January 2025 at DG Vaishnav College, Chennai



9. **Andrea Sharon A, Vinisha W, Catherine R and Effie Shiny Robina** presented their papers in the International Conference “Artificial Intelligence in Higher Education” organized by the Research and Development Cell and IIC, Women’s Christian College, Chennai on 5th and 6th February 2025.



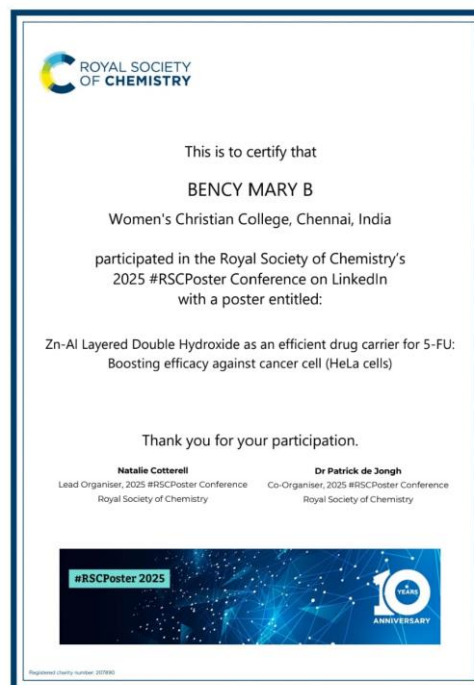
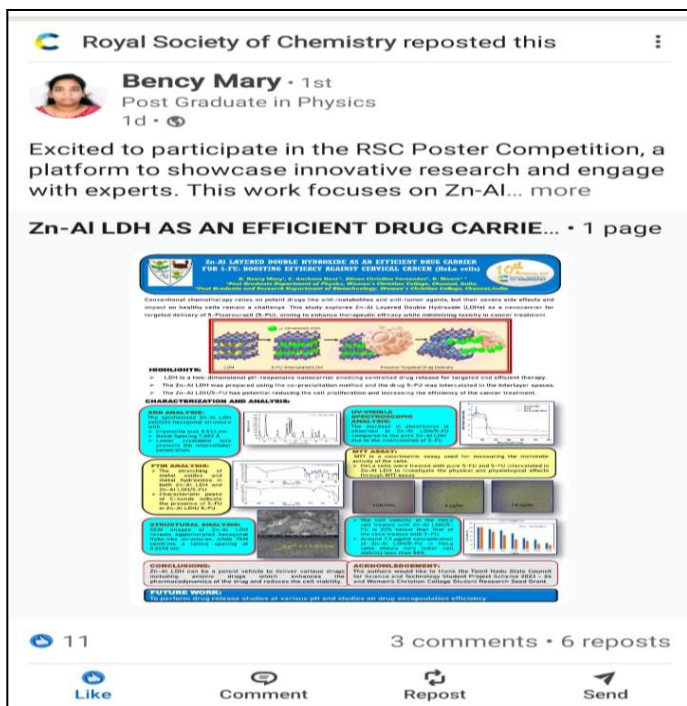
10. An Invited talk was organized by the department on 12th February 2025. **Mr. S. Sabarikanth, Founder, Optilase Industries** delivered a lecture on “Opportunities for Industrial exposure in Physics”. The faculty and I and II M.Sc. Physics students along with 9 undergraduate physics students participated. The session was very interactive and well received, and the speaker emphasized the various opportunities available to physics graduates in both research and industry sectors.



11. **Elizabeth Carline. S and Siva Anusuya. C** has participated in the international webinar of “Quantum Computing for the Next Generation: Exploring Opportunities” on February 2025.



Ms. Bency Mary B (Guest Faculty), Dr. Alison Christina Fernandez, Dr. K. Meera presented their poster on Royal Society of Chemistry, Poster Conference (2025) on 4th and 5th March 2025 (Online) via **Linkedin (#RSCPOSTER)**



Research Seed Grants Received:

TNSCST Student Seed Grant recipient (Rs. 7500)

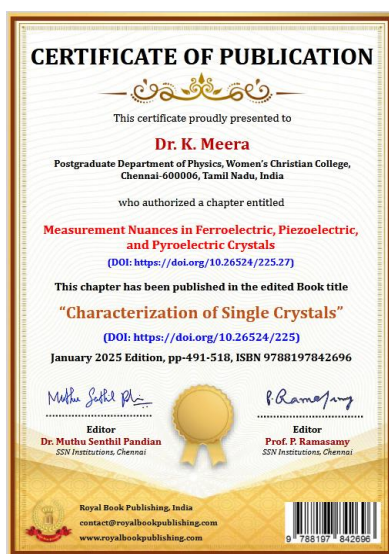
- **Ms. Bency Mary B** (2022-2024 batch) was awarded Student seed grant of Rs. 7500/ from Tamilnadu State Council for Science and Technology under the guidance of Dr. K. Meera
- The following faculty and students received **Research Seed Grant** from the Research and Development Cell, WCC:

◆ **Dr. K. Meera, Dr. Alison Christina Fernandez**

- **Ms. Andrea Sharon A, Ms. Vinisha W, Ms. Effie Shiny Robina**
Guide: (Dr. K. Meera)
- **Ms. Abiyal Roselin Shakina (Ms. Lakshmi Devi S)**
- **Ms. Vigneswari V, Ms. Swathi P (Guide: Dr. Alison Christina Fernandez)**
- **Ms. Jahathratshaki, Ms. Hadassah Alfred, Ms. Suwathi Sethu (Guide: Dr. R Radha)**

Book Chapter Publication:

- ◆ **Dr. Meera K** has published a book chapter entitled “Measurement Nuances in Ferroelectric, Piezoelectric and Pyroelectric Crystals” in the Book “Characterization of Single Crystals” on January 2025 Edition, pp-491-518, ISBN 9788197842696.



Journal Publication:

- ◆ The paper titled "*Zn Al-LAYERED DOUBLE HYDROXIDE NANOCARRIERS FOR 5-FLUOROURACIL DELIVERY: ENHANCED THERAPEUTIC EFFICACY AGAINST CERVICAL CANCER (HeLa Cells)*", authored by Bency Mary B, C. Anchana Devi, Alison Christina Fernandez and K. Meera, has been accepted for Springer publication in the journal – *Applied Physics A* (April 2025).