Name of Faculty	Dr. Bunty Rani Roy
Designation	Assistant Professor
Nature of Job/Appointment	Contract
Date of Joining	18-09-2024
E-mail	buntyraniroy_physics@cbit.ac.in

Education Qualifications	**Name of the Degree**	**Class**
Ph. D	Doctor of Philosophy (Physics)	Awarded
PG	M. SC (Physics)	First with Distinction
UG	B.Sc (Math's, Physics & Chemistry)	First with Distinction

Work Experience

Teaching	12 Years
Research	05 years
Industry	--
Others	--

Area of Specialization	Radiation Physics.
Professional Memberships	Life time membership for Indian Society for Radiation Physics (ISRP).
Responsibilities held at Institution Level	1. Worked as Mentor, 2. Induction Program for B E/B-Tech I semester
Responsibilities held at Department Level	ISO
Research Guidance	--
Awards Received	UGC-BSR- Fellowship
Courses Handled at Under Graduate / Post Graduate Level.	Engineering Physics, Applied Physics, Solid State Physics, Digital Principle & Integrated Circuits, Electromagnetic Theory, and Optics and Semiconductor Physics.
No. of Papers Published	National Journals – 0 International Journals – 06 National Conference – 08 International Conference – 01
Projects Carried out	Seed Grant (CBIT/PROJ-IH/1106/Physics/D008/2025)
Patents	--
Technology Transfer	--
Invited Speaker	--
No. of Books/Chapter Published with details	--

15) NPTEL certification FDP courses

a. Introduction to LASER, 12 week course, 2024

b. Solid State Physics, 12 week course 2023.

c. Applied optics, 12 week course, 2022.

d. Experimental Physics-II, 12 week course, 2022.

14) ATAL FDP on Strategic Leadership in Manufacturing & Industry 4.0: Driving Innovation for Future **at** Chaitanya Bharathi Institute of Technology **from** 10/02/2025 **to** 15/02/2025.

13) QUEST 2024, Five days FDP, organized by KITSW in Collaboration with CTL, NIT Warangal from May 20-24, 2024

12) NEP 2020, Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme of University Grants Commission Organized by Malaviya Mission Teacher Training Centre, National Institute of Technology Warangal from 08-01-2024 to 19-01-2024.

11) One-week Online Faculty Development Program on "Fostering Multidisciplinary Learning: Promoting Learner Centred Teaching using JCT through Classroom Discussions", organized by the Department of Mathematics & Humanities, Kakatiya Institute of Technology & Science in association with the Centre for Training and Learning, National Institute of Technology Waranga/, during 16th - 21st of October, 2023.

10) National seminar on “Innovations in Physics of Molecules and Materials” organized by Department of Physics, Kakatiya University, during 28th and 29th October 2022.

9) 4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/Colleges/Institutes of Higher Education” from 21 August – 19 September, 2022

Details of Short-Term Training **Programs / Faculty Development**

8) AICTE Recognized Faculty Development Programme on “Essential Industrial Chemistry for Engineers” Conducted by Applied Science Department from 05/09/2022 to 09/09/2022 at Kakatiya Institute of Technology and Science, Warangal.

7) 40-hours Online FDP on “Artificial Intelligence and IoT organised by E &ICT Academy, NIT Warangal during 22nd July to 2nd August 2022.

6) One-Week Online Short Term Training Program (STTP) on “Mastering Self-Motivation and Attitude - Art of Living” , Phase-I during 22nd - 26th November 2021 organized by Department of Electrical Engineering , A.U College of Engineering (A), Andhra University.

5) AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Renewable energy for industrial & domestic applications" from 06/09/2021 to 10/09/2021 at Jawaharlal Nehru Technological University Anantapur college of Engineering Pulivendula.

4) AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Magnetic Levitation System" from 27/09/2021 to 01/10/2021 at NIT MIZORAM.

3) Five day workshop on "Computational Physics for Higher Education" organized by Department of Physics, R.V College of Engineering, Bengaluru-59 during 9-13, August, 2021.

2) National level seven days faculty development program on “Innovative teaching strategies for effective implementation of NEP2020” organized by department of education BSSS in association with HRDC and department of continuing education, BU Bhopal from 11 11-2021 to 17-11-2021.

1) AICTE Training And Learning (ATAL) Academy Online FDP on "Novel Materials" from 2021-1- 22 to 2021-1-26 at College of Engineering & Management, Kolaghat.

Details of Journal Publications/ Conferences **(National and International)**

International Journal from the year 2017

1.Uncovering the magnetism, universality class, magnetocaloric effect and ferromagnetic resonance of quenching-treated Co0.3Zn0.7Fe2O4, Materials Chemistry and Physics, Vol. 345, 131176, Year 2025

2. Low-temperature Structural Dynamics of Isatin in Dimethyl Sulfoxide (DMSO) Using Dielectric Spectroscopy, Polycyclic Aromatic Compounds, Vol. 33, 9074-9086, Year 2023

3.Temperature-dependent dielectric relaxation and hydrophobicity of aqueous alanine using time domain reflectometry, Journal of Biomolecular Structure and Dynamics journal, Vol. 41, 10690 10701,Year 2022.

4.Measurement of X-ray mass attenuation coefficient of ZrO2and ZrOSO4near the Kedge using synchrotron radiation, , Solid State Technology, Vol. 63, 6848-6860, Year 2020.

5.New empirical relation for chemical shift and effective charge in the X-ray absorption edge shifts, Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, Vol. 203, 166-176, Year 2018.

6.Measurement of X-ray mass attenuation coefficient of nickel around the K-edge using synchrotron radiation based X-ray absorption study, Radiation Physics and Chemistry, Vol. 114, 38-42, Year 2015.

International /National Conferences from the year 2017

1. Integrating ICT, AI Based Education System for Deaf and Dumb Using Indian Sign Language in Telangana Region, TELEMATIQUE, Vol. 22, 1014 – 1018, Year 2023.

2. Further evidence in support of new empirical relation for chemical shift and effective charge in the X-ray absorption edge shifts, Materials Today: Proceedings, Vol. 92, 1362–1364,Year 2023.

3. Determination X-ray Mass Attenuation Coefficients For NbO2 Compound by SR Source, AIP Conference Proceedings , Vol. 2317, Year 2021.

4. Comparative study of the absorption coefficient of Nb metal and its compound, Materials Today: Proceedings, Vol. 43, Part 2, 2021

5. Investigation of Qualitative Trace Elemental Analysis of Anti-Cancer Medicinal Plant of Catharanthus Roseus from Telangana by EDXRF and PIXE , , AIP Conference Proceedings, Vol. 2317, Year 2021.

6. X-ray Mass attenuation coefficients of Nb2O5 over the energy range 18.9132-19.6882, Journal of Physics: Conference Series, Vol. 1495, Year 2020.