

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) Kakatiya University, Warangal	Awarded
PG	M.Sc. Physics (Electronics)	First with Distinction
UG	B.Sc (M.P.C)	First with Distinction

Work Experience

Teaching	11 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	-
Responsibilities held at Department Level	1. Class Incharge
Research Guidance	-

Awards Received	NPTEL certified courses: స్వయం తేజస్విన భవ	
	1.	UGC-BSR- Fellowship
	2.	Experimental Physics-II, Jan-April 2022, score: Elite
	3.	Applied optics, July-Oct. 2022, score: Silver Elite.
	4.	Solid State Physics, July-Oct. 2023, score: Elite

Courses Handled at Under Graduate / Post Graduate Level.	UG Level:	
	1.Engineering Physics, Electronics, Mechanics, Waves & Oscillations	
	PG Level:	
	1.Solid State Physics, Digital Principle & Integrated Circuits	
No. of Papers Published	National Journals –	International Journals – 05
	National Conference – 08	International Conference – 01

Projects Carried out -
 Patents -
 Technology Transfer -
 Invited Speaker -
 No. of Books/Chapter Published with details -

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.

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.

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.

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.

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.

Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops. Other Training (**Attended and/or Organized**).

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.

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

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.

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

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

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.

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.

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

Details of Journal Publications/
Conferences (National and
International)

International Journal from the year 2017

1. Low-temperature Structural Dynamics of Isatin in Dimethyl Sulfoxide (DMSO) Using Dielectric Spectroscopy, Polycyclic Aromatic Compounds, Vol. 33, 9074-9086, Year 2023
2. 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.
3. Measurement of X-ray mass attenuation coefficient of ZrO₂ and ZrOSO₄ near the K-edge using synchrotron radiation, Solid State Technology, Vol. 63, 6848-6860, Year 2020.
4. 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.
5. 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.

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