CURRICULUM VITAE

RAGHUBIR KUMAR PRAJAPATI
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Personal Details:

- *Father's name : Lallu Prasad Prajapati*
- *Mother's name : Shila Devi*
- *Date of birth : 15 oct.1986*
- *Gender : Male*
- *Marital status : Married*
- *Nationality : Indian*
- *Religion : Hindu*
- *Domicile : Varanasi*

Academic Profile:

Ph. D. (Solid state ionic & material science) ***February, 2026 - Thesis submitted***

Physics Department, I. Sc., Banaras Hindu University, Varanasi

Title: **"***Investigation on ion conducting biopolymer electrolytes and their applications in electrochemical capacitors"*

Supervisor *– Prof. Horesh Kumar &* ***Co-supervisor****- Prof. A.L Saroj*

Special Achievements:

- Qualified Joint Entrance Screening Test (as a NET) **JEST -2015** in Physical Science.
- Qualified Joint **CSIR–UGC NET** (Physical Science) in June 2018

Post-Graduation (Physics)

- M.Sc. in Physics from Banaras Hindu University in 2014 with Second Division (Specialization in Bio-physics).

Graduation (PCM)

- B.Sc. (PMC) group from Paranuchal University in 2011 with Second Division.

Senior Secondary Education (Science stream)

- Intermediate from the U.P. Board in 2006 with first Division.

High School Education

- Matriculation from the U.P. Board in 2004 with Second Division.

Awards/Honor

- UGC Non-NET fellowship
- SRG fellowship

Work experience:

1. ***Lecturer in Physics***, Dr. Ghanshyam Singh P.G. College, Varanasi (1 March 2015 - 26 September 2019) - *5 years of teaching experience (UG & PG levels).* ***Currently teaching since 1 March 2026***
2. ***Assistant Professor***, *Udai Pratap Autonomous College*, Varanasi (27 September 2019-31 December 2020) - 15th months of teaching experience (UG & PG levels).

Skills and expertise:

- Impedance Spectroscopy (IS), Ionic transference number, LSV, Ionic Conductivity, Cyclic Voltammetry (CV), Ionic Liquid, Application of electrochemical devices and Supercapacitor (EDLC), Nuclear Emulsion Technique, C++, and Fortran 77.

Research paper:

1. ***R. K. Prajapati,*** Horesh Kumar and A. L. Saroj, Chitosan–PVA–$AgNO_3$-Ionic liquid based solid electrolyte membranes for Supercapacitor applications: Structural, thermal and ion transport studies, ***Journal of Polymers and the Environment: 17(2026). Impact Factor 5.3, Q1.***
2. ***R.K. Prajapati,*** Pooja Rawat, Horesh Kumar, A. L. Saroj, Chitosan-PVA-$Mg(NO_3)_2$ based BPBE membranes for electrochemical capacitor applications: Structural, thermal and electrical transport properties study, ***Materials Science and Engineering: B*** 317 (2025) 118200. ***Impact Factor 4.6 Q1.***
3. ***R.K. Prajapati,*** H. Kumar, A.L. Saroj, Formation of silver particles in [PVA:CS: PEG]-$AgNO_3$ based biopolymer electrolyte membranes: Structural and electric transport properties study, ***Physica B: Condensed Matter***, 662, (2023), 414962. ***Impact Factor 2.8 Q2.***
4. Gulshan Kumar Meena1, Pooja Rawat, ***Raghubir Kumar Prajapati***, and A. L. Saroj, Plasticized biopolymer electrolyte membranes based on gellan gum-MeSO4Na: structural, thermal and electrical transport properties study, ***J.Materials Science: Materials in Electronics*** (2025) 36:433. ***Impact Factor 2.8 Q2.***
5. A.L. Saroj, Chandrakant K. Gond, *Pooja Rawat*, ***R.K. Prajapati,*** Gulshan K. Meena, Pravin K. Ray, Ionic liquid based NCPBE membranes for electrochemical capacitor

applications: Structural, thermal and electrical transport properties, ***Physica B: Condensed Matter,*** 691, 2024. ***Impact Factor 2.8 Q2.***

6. Pooja Rawat, ***R.K. Prajapati,*** G.K. Meena, A.L. Saroj, Enhancing the performance of Chitosan/PVP based bio-polymer electrolyte incorporated with SiO_2 nano-particles in dye-sensitized solar cell, ***Materials Science and Engineering: B***, 308, 2024. ***Impact Factor 4.6 Q1.***
7. N. Marimuthu, ***R. Prajapati***, M. K. Singh, V. Singh & S. S. R. Inbanathan ,Study of relativistic charged particles production in 84Kr3684Kr36 emulsion interactions ∼∼1GeV per nucleon with wounded nucleon model, International Journal of Modern Physics E Vol. 28, No. 08, 1950058 (2019).

Seminar/ Conference:

1. ***One-day conference*** on new trends In Research (NTR-2026), held on 7th February 2026, organized by the Department of Physics, Institute of Science, Banaras Hindu University.
2. ***One-day conference*** on "Recent Trends in Research 2025, held on 7th February 2025, organized by the Department of Physics, Institute of Science, Banaras Hindu University.
3. ***International Conference*** on Recent Trends In Physics cum Alumni Meet-2024, February 05-07, 2025 organized by the Department of Physics, Banaras Hindu University.
4. ***International Conference*** on Advanced Materials for Better Tomorrow-I, *October 10-13, 2023* organized by *the* Department of Physics, Banaras Hindu University.
5. ***15th National Conference*** on Solid State Ionics (NCSS-15) held during December 02 to 04,2023 organized by *the* Department of Physics, Banaras Hindu University.
6. ***National Conference*** on Advanced in Solar Energy Materials (ASEM-23), March 16-18,2023 organized by the Department of Physics Mahila Mahavidyala, Banaras Hindu University.
7. ***International Lecture*** Series on Recent Advances in Physics" entitled "Photovoltaic Technologies: History, Status and Opportunities" organized by the Department of Physics, Deshbandhu College, University of Delhi on ***11th April, 2022.***
8. Online Training Program/Workshop on Characterization Technique of Material and Devices organized by CSIR-National Physical Laboratory, New Delhi, during the period March *14th -15th, 2022*.

9. ***International Lecture*** Series on Recent Advances in Physics" organized by the Department of Physics, Deshbandhu College, University of Delhi, on ***15th February, 2022.***

10. ***International Conference*** on Energy Materials and Devices ***(ICEMD-2022) January 11 & 12, 2022,*** Organized by Department of Physics (MMV), Institute of Science, Banaras Hindu University, Varanasi.
11. ***NASI Lecture- Workshop on*** "Writing of a Good Research Paper: Technical & Ethical Aspects" organised by Department of Chemistry, Institute of Science, BHU.
12. Hydrogen energy and Nano materials (***International conference***) *Oct. 26-28, 2021* organized by the Department of Physics, Institute of Science, Banaras Hindu University, Varanasi.
13. One Day Research Scholar Seminar on Recent Trends in Research (*8th February 2020*) Organized by the Department of Physics, Institute of Science, Banaras Hindu University, Varanasi.
14. DAE ***International Symposium*** on Nuclear Physics - 2018 at BARC, Mumbai.
15. ***Conference National*** on Nano science and Technologies in Digital India - 2018 at Shobhit Deemed University, Meerut.

Declaration:

I hereby affirm that the information provided in this document is accurate and true to the best of my knowledge.

(Raghubir Kumar Prajapati)