

Curriculum vitae



Dr. Renuka Chauhan

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Personal details:

Date of Birth : 9 Aug, 1988

Sex : Female

Language (written/spoken) : English, Hindi

Nationality : Indian

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Mo. Natthasingh In front of Swagat Mandap,
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Pincode: 244712.

PROFESSIONAL OBJECTIVE

To establish a career in the field of Teaching, Research and Development, where I can hone my skill and endorse to the utmost.

ACADEMIC RECORD:

Degree/Certificate	Board/University	Subjects	Marks%	Year
High School	Uttarakhand Board	Mathematics, Science, Hindi, English, Soci. science, Sanskrit	64	2003
Intermediate	Uttarakhand Board	Physics, Chemistry, Mathematics, English, Hindi	70	2005
B.Sc.	Kumaun University, Nainital	Physics, Chemistry, Mathematics	65.18	2008
M.Sc.#	G.B.Pant Univ. of Ag.& Tech., Pantnagar	Physics	71.75	2010
B. Ed.	C C S University, Meerut	Teaching of Mathematics, Physical Science	68.3	2011
Ph.D.*	G.B.Pant Univ. of Ag.& Tech., Pantnagar	Physics(Material Science)	75.87	2015

* Ph. D. Thesis : “**Swift Heavy Ion Induced Modification on Various Properties of Few Ferroelectric and Multiferroic Nanocomposites**” under the supervision of *Dr. R. C. Srivastava*, Professor at G B Pant University of Ag. And Tech, Pantnagar, India.

M.Sc. Thesis: “**Study of Temperature Dependent Thermoelastic Properties for Nanomaterials**” under the supervision of *Dr. U. C. Johri*, Professor at G B Pant University of Ag. And Tech, Pantnagar, India.

OTHERS DETAILS

- ✓ Qualified **USET Exam (SLET)** on Year **2015**.
- ✓ I have done some outstanding experiments at following well recognized labs:
 - Inter University Accelerator Centre (IUAC) New Delhi.
 - UGC-DAE Consortium for Scientific Research (Indore).
 - Indian Institute of Technology, Kanpur
 - Indian Institute of Technology, Delhi

TEACHING EXPERIENCE:

Designation	Institute/University	Period	
		From	To
Guest Faculty	R H Govt. PG College, Kashipur/ Kumaun University	15.11.2017	21.03.2020
Guest Faculty	Govt. PG College Syalde, Almora/ Kumaun University	14.12.2015	08.06.2016
Teaching Personnel	CBSH/ G.B.Pant Univ. of Ag.& Tech., Pantnagar	17.07.2015	19.11.2015
Teaching Personnel	CBSH/ G.B.Pant Univ. of Ag.& Tech., Pantnagar	11.01.2011	29.05.2011

UG level: 3 years

PG level: 2 years

A. Courses taught at Under-Graduate Level:

Sl. No.	Course No.	Title of course
1.	BPP-195	Physics I
2.	BPP-196	Physics II

3.	BPP-197	Engineering Physics
4.	BPP-190	General Physics
5.	BPP-315	Elements of Nanoscience and Nanotechnology
6.		Theory of Oscillation
7.		Thermodynamics
8.		Elementary Solid State
9.		Waves and Acoustics
10.		Physical Optics
11.		Experimental Physics

B. Courses taught at Post Graduate Level :

Sl. No.	Title of course
1.	Mathematical Methods of Physics
2.	Classical Mechanics
3.	Condensed Matter Physics
4.	Electrodynamics
5.	Advanced Electronics I
6.	Experimental Physics I
7.	Experimental Physics II
8.	Advanced Electronics II

TECHNICAL SKILLS

(1) Multiferroic Materials:

- Experience of synthesis of nano-materials and composites using Solid state Reaction, Sol-gel, chemical precipitation methods etc.
- Characterization on XRD, FTIR, UV-VIS, Raman, GIXRD, AFM, TEM, VSM, SQUID, PE-Loop, Dielectric Spectroscopy etc.
- Thin film deposition by Pulsed laser deposition Technique (PLD), Spin coating.
- Experience of study of Swift heavy ion irradiation.

(2) Scientific Softwares / programming:

- PowderX, Fullprof, Origin, SRIM, WSxM, Nanoscope, Xrump, SIMNRA, R, SAS etc.
- FORTRAN 77, C Programming Language, C++ Programming Language .

**FIELD OF SPECIALIZATION: EXPERIMENTAL CONDENSED MATTER
PHYSICS/Nanomaterials**

Extensive work is done on the preparation and characterization of various kinds of multiferroic nano-materials like BaTiO₃-Ni-Zn ferrite, BaZrO₃-Ni-Zn Ferrite, Ba-Sr-Ti-Zr-O₃ composites, thin films and their substituted derivatives. Different synthesizing routes were used to prepare these novel materials e.g., solid state reaction, sol-gel process, PLD technique, Spin coating technique etc. The materials modifications were done by introducing various dopants. The SHI irradiation technique was also used to tailor the properties of these materials characterization techniques like XRD, GIXRD, AFM, TEM, FTIR, Raman, Mossbauer Spectroscopy, VSM, SQUID, P-E Loop tracer, Dielectric and Resistivity, UV-Visible etc. were carried out.

Publications:

- ❖ **Renuka Chauhan** and R. C. Srivastava (2016), Various properties of the 0.6BaTiO₃-0.4Ni_{0.5}Zn_{0.5}Fe₂O₄ multiferroic nanocomposite, *pramana-J. Phys.*, **87**:45.
- ❖ **Renuka Chauhan** and R. C. Srivastava (2015), Dielectric Study of BaZr_{0.5}Ti_{0.5}O₃ Relaxor Ferroelectric Ceramic, *International journal of electronic communication and engineering* **4**:1-8.
- ❖ Pande A, Kumar N, Pande S, **Chauhan R**, Khorwal KM. Seroprevalence of Dengue cases detected by ELISA technique in Bharatpur District of Rajasthan. *Sch. J. App. Med. Sci.* (2018) **6**: ISSN 2320-6691
- ❖ Neeraj Kumar, Bharti Malhotra, SK Mehra, Janardhan Reddy, Pratibha Sharma and **Renuka Chauhan**, Comparative evaluation of antigen ELISA technique and PCR for detection of Rotavirus in stool samples of pediatric patients with diarrhea, *JMSCR* Vol 06 Issue 06 846-852(2018).
- ❖ Neeraj Kumar, SK Mehra, Bharti Malhotra, M. Anjaneya Swamy and **Renuka Chauhan**, Human Bocavirus detected in stool samples from ≤ 5 years children with Acute Gastroenteritis, *Sch. J. App. Med. Sci.*, May 2018; **6**(5): 1979-1981

Communicated/Under Preparation: 02/03

PROFESSIONAL MEMBERSHIPS:

Ion beam society of India

Conferences/workshop/school:

- ❖ Participated in International Conference on “Ion Beams in Materials Engineering and Characterizations (IBMEC 2018)” at IUAC, New Delhi on October 09-12, 2018.
- ❖ Participated in International Conference on Nanotechnology: Idea, Innovations and Initiatives (ICN:3I 2017) at IIT Roorkee, India on December 06-08, 2017.
- ❖ Participated in 4th International Conference on Nano Structuring by Ion Beam (ICNIB 2017) at Devi Ahilya University, Indore (M.P.), India on October 11-13, 2017.
- ❖ Participated in a training program on “**Effective use of e-Resources**”, organized by G.B.Pant University of Agriculture & Technology, Pantnagar, April 2015.
- ❖ DST-SERB School on “**Ion Interaction with Matter**”, Saurashtra University, Rajkot, March 2015.
- ❖ Attended **Ph.D. Teaching Program, Advanced Lecture Series**, semester- II, Module 1.4: **Measurement Techniques** at IUAC, New Delhi from 24th March to 11th April, 2014.
- ❖ Participated in **C S R Lecture Series** at UGC-DAE Consortium for scientific Research, Indore, September 2014.
- ❖ Attended two day meeting on Recent Developments in Magnetic Materials and Thin Films (**RDMMTF-2013**) held at **Indore** from 8th of May 2013.
- ❖ Attended National School cum workshop on “**SCIENTIFIC/RESEARCH PAPER WRITING**” organized by Mohan Lal Sukhadia University (Udaipur) Rajasthan, under the coordinator ship of Prof. Maheep Bhatnagar, Prof. & Head, Dean faculty of Science, Dept. of Zoology, M.L.S. University Udaipur on April 05-07, 2013.

Academic/Professional Referees:

- ❖ **Dr. R. C. Srivastava (Advisor)**
Professor
Department of Physics
G.B. Pant Univ. of Ag. & Tech., Pantnagar, Uttarakhand
PIN-263145
resrivastava123@gmail.com,
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- ❖ **Dr. H. M. Agrwal (Co-Advisor)**
Professor & Head,

Department of Physics
G.B. Pant Univ. of Ag. & Tech., Pantnagar, Uttarakhand
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- ❖ **Dr. K. Asokan**
Sr. Scientist
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- ❖ **Dr. Alope Kanjilal**
Associate Professor
Department of Physics, School of Natural Sciences,
Shiv Nadar University, Gautam Buddha Nagar, UP, India
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- ❖ **Dr. R J Choudhary**
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- ❖ **Dr. Fouran Singh**
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DECLARATION

I hereby declare that all the information made herein is true and best in my knowledge.

Date: 17-04-2019
Place: JASPUR



(Renuka Chauhan)