

## Dr. Bhavnaish Chand

Designation : Associate Prof. of Physics

Subject : PHYSICS

Teaching Experience: 20 Years at UG Level

Area of Specialization : X-Ray Crystallography

College : Govt. College for Women Udhampur

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### Summary

- Ph.D. degree in **PHYSICS**
- Currently working at GCW Udhampur

### Awards and Achievements

- ***Awarded J&K Innovative Science Teacher Award-2014 by the J&K State Science, Technology & Innovation Council vide Govt. order No. 54 ST of 2015 dated 7-10-2015***
- ***Reviewed Research Papers for Following Peer reviewed Journals:***
  - a) *Journal of Structural Chemistry (China)*
  - b) *Indian Journal of Chemical Engineering and Materials Science*
  - c) *Journal of Crystal Structure Theory & Applications (USA)*
  - d) *Natural Product Research (UK)*
- ***Selected for Two months IASc-INSa-NASl Summer Research Fellowship-2013 by Indian Academy of Sciences, Bangalore.***

### Workshops, Seminars, Symposia and Conferences attended

- Participated in National “XV DAE SYMPOSIUM ON HIGH ENERGY PHYSICS” held at Department of Physics, University of Jammu, Jammu w.e.f. November 11-15, 2002.***
- Attended “ONE DAY NUCLEAR SCIENCE CENTRE ACQUAINTANCE PROGRAMME” organized by Crystal Growth and Materials Research Group, Department of Physics, University of Jammu, Jammu on 21<sup>st</sup> May-2004.***

- iii) *Participated in “Seminar on Physics of Materials” organized by Condensed Matter Physics Group, Department of Physics, University of Jammu, Jammu w.e.f. November 24-25<sup>th</sup>, 2004.*
- iv) *Participated in “National Conference on Emerging Trends in Electronics Technologies-2006” held on 4-5<sup>th</sup> March, 2006 at Shri Mata Vaishno Devi University, Katra (Jammu).*
- v) *Participated in Workshop on “Use of Diffraction Methods in Condensed Matter” held on 7-9<sup>th</sup> March, 2007 organized by Department of Physics & Electronics University of Jammu, Jammu and UGC-DAE Consortium for Scientific Research, Mumbai Centre.*
- vi) *Participated in Education Conference on “Higher Education in Changing Scenario: Challenges and Prospectus” held on 25-26<sup>th</sup> March, 2009 organized by IQAC Govt. College for Women, MA Road Srinagar and **Presented** a Paper in the Conference.*
- vii) *Participated in “39<sup>th</sup> National Seminar on Crystallography” held on 25-27<sup>th</sup> October, 2010 organized by Condensed matter Physics group University of Jammu, Jammu and **Presented** a Paper in the Seminar.*
- viii) *Participated in “7<sup>th</sup> JK Science Congress” held on 13-15<sup>th</sup> October, 2011 organized by University of Jammu in Collaboration with J&K State Council for Science and Technology.*
- ix) *Participated in UGC Sponsored “National Symposium on Interdisciplinary Sciences” held on 2-3<sup>rd</sup> March, 2012 organized by G.G.M. Sc. College Jammu and **Presented** a Paper in the Symposium.*
- x) *Attended two-day National Workshop on Nanofabrication Technologies w.e.f. 6<sup>th</sup>-7<sup>th</sup> September 2014, organized by Dept. of Physics & Electronics University of Jammu and Sponsored by IIT Bombay.*
- xi) *Attended NAAC sponsored National Workshop on “Accreditation Awareness & Institutional Ranking” held w.e.f. 5<sup>th</sup>-6<sup>th</sup> January 2015, organized by Dept. of HRM & OB Central University of Jammu.*
- xii) ***Presented** paper titled “Analysis of Intra-and Intermolecular Hydrogen Bonding in some Derivatives of Steroids” in Two-day “National Symposium on Interdisciplinary Sciences” held on 27<sup>th</sup>-28<sup>th</sup> February 2015, organized by G.G.M. science College Jammu and Sponsored by CSIR.*
- xiii) *Attended one day National Conference on trends in Electronics & Computational Technologies held on 20<sup>th</sup> March 2015, organized by IETE Jammu Centre and Ramnagar Campus of Jammu University.*
- xiv) *Attended two days National Workshop on “E-content Development and Management” organized by Govt. College for Women Gandhi Nagar, Jammu on 23<sup>rd</sup> & 24<sup>th</sup> July, 2015.*

- xv) *Attended one-day Workshop on “Information Security” under Information Security & Awareness Project organized by Govt. College for Women Gandhi Nagar, Jammu in collaboration with NIELIT Jammu on 16<sup>th</sup> October, 2015.*
- xvi) *Attended “Intellectual Property Rights Awareness” Workshop organized by Govt. College for Women Gandhi Nagar, Jammu in collaboration with J&K State Science, Technology & Innovation Council, Dept. of Science & Technology on 18<sup>th</sup> November, 2015.*
- xvii) **Presented** a paper titled “Crystallographic findings, Hydrogen Bonding Analysis & Biological Activity in some Cholest based Steroids” in two days **International Conference** on “Research & Innovations in Science, Engineering & technology, 2015” organized by Yogananda College of Engineering & Technology, Jammu during 20<sup>th</sup>-21<sup>st</sup> November, 2015.

## Research Publications

List of Research Publications in peer -reviewed Referred Journals:

- i) *“Crystallographic Comparison and Hydrogen bonding analysis of Cholestane derivatives”*

**International Publication**

**[U.K.]**

*Acta Crystallographica, Sec-A. Year 2006. PP. 136-145.*

- ii) *“Biological activity predictions, Crystallographic Comparison and Hydrogen bonding analysis of Cholane derivatives”*

**National Publication**

**[INDIA]**

*Indian Journal of Biochemistry and Biophysics. Vol. 44. Year 2007. PP. 458-469.*

- iii) *“Analysis of intra- and intermolecular Hydrogen bonding in Androstane derivatives: A case study of Steroids”*

**International Publication**

**[GERMANY]**

*Z. Kristallographie. Vol. 26. Year 2007. PP. 587-592.*

- iv) *“Comparative Crystallographic and Hydrogen bonding analysis of Pregnane derivatives”*

**International Publication**

**[U.S.A.]**

*American Journal of Chemical Crystallography. Vol. 38(3). Year 2008. PP. 211-230.*

- v) **“Biological activity predictions and Hydrogen bonding analysis of Estrane derivatives of Steroids”**

**International Publication**

**[U.S.A.]**

*American Journal of Chemical Crystallography. Vol. 38(8). Year 2008. PP. 567-576.*

- vi) **“Voltage- mode SITO Multifunction Filter using only two FTFNS”**

**International Publication**

**[TURKEY]**

*Journal of Electrical and Electronics Engineering. Vol. 9(2). Year 2009. PP. 1109-1114.*

- vii) **“Biological-Activity-Predictions, Crystallographic Comparison and Role of Packing Interactions in Androstane Derivatives of Steroids”**

**International Publication**

**[U.S.A.]**

*American Journal of Chemical Crystallography. Vol. 41(3). Year 2011. PP. 255-275.*

- viii) **“Structure-Bioactivity-Relationships and Crystallographic Analysis of Secondary Interactions in Pregnane-Based Steroids”**

**International Publication**

**[U.S.A.]**

*American Journal of Chemical Crystallography. Vol. 41(12). Year 2011. PP. 1901-1926.*

- ix) **“Current/Voltage-Mode Biquad with a minimum Number of Active and Passive Elements”**

**International Publication**

**[U.S.A.]**

*Journal of Active and Passive Electronic Devices. Vol. 7(1-2). Year 2012. PP. 169-178.*

**Academic Qualifications**

Examination Passed	Board/ University	Subjects	Year	Division / Grade / Merit
SSC	JKBOSE, Jammu	G. Eng., Science, Social Science, Hindi, Mathematics	1985	I <sup>st</sup> Division
Higher Secondary	JKBOSE, Jammu	G. Eng., Physics, Chemistry, Mathematics	1987	Distinction
Bachelor's Degree(s)	University of Jammu	G. Eng., Physics, Chemistry, Mathematics	1990	I <sup>st</sup> Division
Master's Degree(s) (M.A/M.Sc.)	University of Jammu	PHYSICS	1992	I <sup>st</sup> Division

## Research Experience

Research Stage	Title of Work /Thesis	University where the work was carried out	Year
M. Phil or equivalent	.....	.....	.....
Ph.D.	A study of molecular and crystal structure of some steroidal molecules	University of Jammu	2008
D.Sc/D.Litt.	.....	.....	.....
Training (Please specify)			

## Teaching Experience

Courses Taught	Name of the University/ College/Institution	Duration
iv) U.G. (B.A./B.Sc. etc.) (B.A./B.Sc. etc. Hons.)	a) Govt. Degree College Baderwah b) G.G.M. Sc. College Jammu c) GDC (Boys) Udhampur d) Govt. College for Women Parade, Jammu e) Govt. College for Women Udhampur	a) 28-05-1997 to 5-11-1999 b) 6-11-1999 to 27-05-2008 c) 28-05-2008 to 14-07-2011 d) 15-07-2011 to 4-3-2014 e) 5-03-2014 to Till Date
v) P.G. (M.A./M.Sc.,etc.)		
vii) Any other (e.g. Women Study, Skill Development, Add on courses, Coaching (JUET, CET) etc)	Provided coaching to SC/ST/OBC and Minority students for JK CET, sponsored by Dept. of Lifelong Learning, University of Jammu.  Provided coaching to College students for JUET	

## Faculty Development Programs Attended

1. Attended 04 weeks General Orientation course held at University of Jammu w.e.f. 17<sup>th</sup> Feb. 1998 to 14<sup>th</sup> March 1998, organized by the Academic Staff College (ASC), University of Kashmir.
2. Attended Three weeks Refresher course in Physics held at University of Jammu w.e.f. 22<sup>nd</sup> Oct. 2001-11<sup>th</sup> Nov. 2001, organized by the Academic Staff College (ASC), University of Kashmir.
3. Attended Three weeks Refresher course in Physics held at University of Jammu w.e.f. 19<sup>th</sup> July 2004 – 10<sup>th</sup> Oct. 2004, organized by the Academic Staff College (ASC), University of Kashmir.
4. Attended Three weeks Refresher course in Physics held at University of Jammu w.e.f. 14<sup>th</sup> Feb. 2006- 4<sup>th</sup> March 2006, organized by the Academic Staff College (ASC), University of Kashmir.

## C-Academic Activities

- Remained as HOD of BCA Dept. at GCW Parade Jammu w.e.f. 11<sup>th</sup> August 2012-3<sup>rd</sup> March 2014
- Presently working as HOD of Physics at GCW Udhampur
- Convener of various College committees like Purchase, IQAC, Science Club, Discipline/Anti-ragging, Advisory, Magazine/Newsletter, Income-Tax/Pay Fixation, Website.
- Member of Board of studies in Physics (Jammu University)
- Worked as a Convener of Committee for Stores & stocks verification of GDC(Boys) Udhampur w.e.f. 5<sup>th</sup> June to 15<sup>th</sup> July, 2014 in pursuance to Higher Education Dept. J&K Govt. letter no. HE/Acctt/P.Verification/2014-15/02 dated 02-04-2014.
- Worked as a Coordinator of Study Centre (Govt. Degree College Udhampur) of Directorate of Distance Education, University of Jammu, Jammu w.e.f. 1<sup>st</sup> April, 2010 to 14<sup>th</sup> July, 2011.
- As a member conducted the inspection of internal assessment and maintenance of record of UG classes at GDC Jindrah.

### **Extension Work / Community Service**

Being convener of Science club of the college organized various inter-college seminars, symposia, poster making competitions and field trips for students to IIIM Jammu and various Depts/Labs of Jammu University to stimulate the interest in the subject in question that goes beyond the confines of the course syllabus. Further organized two months long certificate courses in Computer concepts for College students from time to time in collaboration with NIELIT, University of Jammu and sponsored by the J&K State, Science, Technology and Innovation Council Dist. Office Udhampur