



Faculty Details Performa Web-site

Title	Prof.	First Name	Vinod	Last Name	Prasad	Photograph
Designation	Professor					
Address	12-D, PLATINUM ENCLAVE, SECTOR-18, ROHINI, DELHI-110085 INDIA					
Phone No Office						
Email	vprasad@ss.du.ac.in					
Educational Qualifications						
Degree	College/Department					year
B. Sc.	Garhwal University					1981
M. Sc.	Garhwal University					1983
M. Phil	University of Delhi					1986
Ph. D.	University of Delhi					1991
Career Profile						
<p>Joined Swami Shradhanand College as Assistant Professor. Promoted to Associate professor Scale on 01.01.2006 Recently Promoted to Professor grade.</p>						
Current Assignment						
<p>Professor in Physics Department of Physics Swami Shradhanand College, Alipur</p>						
Administrative Assignments Held						
<p>Different assignments as per the requirement of the college from time to time.</p>						

Areas of Interest / Specialization	
Theoretical Atomic and Molecular Physics, Theoretical Condensed matter, Computational Methods	
Subjects Taught	
Mathematical Physics-I, Mathematical Physics-II, Mathematical Physics-III, Electromagnetic Theory	
Research Guidance	
<u>Registered:</u> 1. Mr. Ashish Tyagi (Registered Nov.2013) 2. Ms. Dipti Munjal (Registered in Jan.2016) 3. Ms. Sumana Devi (Registered in Nov.2017) 4. Mr. Kirtee Poonia (Registered June 2019) 5. Ms. Chanchal Yadav (Registered June 2019) 6. Ms. Varsha (Registered June 2019)	<u>Awarded:</u> <u>1. Dr. Monica Gambhir was awarded PhD by DU in 2010.</u> She worked under the joint supervision with me and Prof. Man Mohan 2. Dr. Urvashi Arya Awarded in January 2014 3. Dr. Anjali Maan Awarded in May 2018.
Publications Profile	
List of Publications from last two years.	
<u>Quantum Confined Stark Effect on the Linear and Nonlinear Optical Properties of SiGe/Si Semi Oblate and Prolate Quantum Dots Grown in Si Wetting Layer</u> MK Varsha, J El Hamdaoui, LM Pérez, V Prasad, M El-Yadri, D Laroze, ... Nanomaterials 11 (6)	
<u>Dependence of nonlinear optical properties on electrostatic interaction in an excitonic parabolic quantum dot in a static magnetic field</u> M Gambhir, V Prasad Journal of Modern Optics, 1-13	
<u>Wetting layer and size effects on the nonlinear optical properties of semi oblate and prolate Si_{0.7}Ge_{0.3}/Si quantum dots</u>	

M Kria, M Farkous, V Prasad, F Dujardin, LM Pérez, D Laroze, E Feddi Current Applied Physics 25, 1-11
<u>Shannon information entropy sum of the confined hydrogenic atom under the influence of an electric field</u> SJC Salazar, HG Laguna, B Dahiya, V Prasad, RP Sagar The European Physical Journal D 75 (4), 1-13
<u>Localization–delocalization of a particle in a quantum corral in presence of a constant magnetic field</u> E Cruz, N Aquino, V Prasad The European Physical Journal D 75 (3), 1-10
<u>Charge currents and induced magnetic fields in a bounded two-dimensional hydrogen atom</u> S LumbTalwar, S Lumb, V Prasad The European Physical Journal D 75 (2), 1-9
<u>Entropic measures of an atom confined in modified Hulthen potential</u> K Kumar, V Prasad Results in Physics 21, 103796
<u>Static multipole polarizabilities of H-atom in modified ring-shaped potentials</u> C Yadav, S Lumb, V Prasad The European Physical Journal D 75 (1), 1-9
<u>Thermal behaviour of hindered rotor in static electric and laser field</u> S Devi, A Tyagi, V Prasad Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 240, 118538
<u>Generation of charge currents and magnetic pulses</u> S Lumb, SL Talwar, V Prasad Journal of Physics B: Atomic, Molecular and Optical Physics 53 (20), 205002
<u>Orientation and Alignment dynamics of polar molecule driven by shaped laser pulses</u> VV Nautiyal, S Devi, A Tyagi, B Vidhani, A Maan, V Prasad arXiv preprint arXiv:2009.11000
<u>Variations in photosynthesis associated traits and grain yield of minor millets</u> KS Pavithra, A Senthil, VBR Prasad, R Ravikesavan, M Djanaguiraman Plant Physiology Reports 25 (3), 418-425
<u>Shannon-information entropy sum in the confined hydrogenic atom</u> SJC Salazar, HG Laguna, V Prasad, RP Sagar International Journal of Quantum Chemistry 120 (11), e26188
<u>Dynamic polarizabilities for screened potentials modified by ring potential</u> C Yadav, S Lumb, SL Talwar, V Prasad AIP Conference Proceedings 2220 (1), 130063
<u>Confined two-dimensional hydrogen atom in magnetic field</u> K Kumar, SL Talwar, S Lumb, V Prasad AIP Conference Proceedings 2220 (1), 020098
<u>Study of optical properties of Wannier-Mott exciton in spherical quantum dot in Kratzer potential</u> Varsha, P Silotia, V Prasad AIP Conference Proceedings 2220 (1), 020154
<u>Particle confined in modified ring-shaped potential</u> SL Talwar, S Lumb, KD Sen, V Prasad Physica Scripta 95 (3), 035404

For more publications, please see the following links

1. <https://sites.google.com/view/vinodprasad/selected-publications>
2. <https://scholar.google.com/citations?user=LHVhf1cAAAAJ&hl=en>

Conference Organization/ Presentations

Contribution in National Conferences:

National symposium on nano materials: Dept. of Physics, Jamia Milia Islamia, New Delhi, April 28-29, 2014

Intersubband and interband transitions in multiple quantum well systems in magnetic field., H.Joshi, R.K. Meena and V.Prasad [A176] P.410

Absorption spectra of two electron quantum ring: P.Silotia, R.K. Meena and V.Prasad [A115]

National conference on atomic and molecular Physics, , MMH College Ghaziabad U.P.

Dynamics of H-atom in ultrashort chirped laser pulses, U.P.

Rotational dynamics of Polar diatomic molecules in presence of delayed zero area phase modulated pulses

Topical Conference on Atomic & Molecular Physics

January 3-4-5, 2008, Department of Physics, Sardar Patel University, Vallabh Vidyanagar

National Wo.XII National Conference on Atomic and Molecular Physics, Department of Physics, M.L.S. University, Udaipur, India, Dec 29, 1998 – Jan 2, 1999.

National Laser Symposium at CAT, INDORE, India, 20th-24th Jan 1996.

National symposium on optics and optoelectronics, IRDE, Dehradun, India, March 14-16, 1996.

National conference on Atomic and Molecular Physics, IIT Chennai, India, Dec. 17-20, 1996.

National Conference on Recent Trends in Atomic and Molecular Physics, BARC, Mumbai, India, Dec. 21-24, 1993.

National Conference on Atomic and Molecular Physics BARC, Mumbai, India, Dec., 1992.

Workshop on Atomic and Molecular Physics, Hyderabad, India, Dec., 1991.

Talks Delivered:

Colloquium Talk at Department of Quantum Chemistry, UAM, Mexico, September 18, 2019.

Colloquium Talk at Department of Quantum Chemistry, UAM, Mexico Nov. 20, 2018

Colloquium Talk at the Department of Physics, UAM Mexico, Nov.8, 2018

Colloquium Talk at the University of Kaiserslautern, Germany Nov.10, 2016

Talk at The University of Halle, Germany June 4, 2012.

Talk at the University of Tokyo, Japan Oct 11, 2007

Talk at the University of Tokyo, Japan Nov. 15, 2006

Talk at the University of Tokyo, Japan June 28, 2004

Research Projects (Major Grants/Research Collaboration)

Ms. Dipti Munjal who was awarded Women Scientist 'A' completed a Major project titled "Study of confined atoms in external fields" under my guidance. She joined the said fellowship on May1, 2015 till 30 April 2018.

The project was funded by **Department of Science & Technology (DST), Govt. of INDIA**

Awards and Distinctions

Recipient of Best Teacher Award: Delhi Government award for Delhi University teachers 2014-15.
(A cash prize of Rs. 100000/-)

National Scholarship 1977.

Junior Research Fellow of CSIR, India, 1987-1989.

Senior Research Fellow of CSIR, India, 1989-1992.

Post-Doctoral Research Associate of CSIR, India, 1992-1994.

International Scientific Positions:

Visiting scientist International center for Theoretical Physics, Trieste, Italy, July- Aug.1993.

Visiting JSPS (Japan Society for promotion of Sciences) Fellow at the University of Tokyo, Japan, 2004-2005.

Visiting Scientist, University of Tokyo, Japan, Oct.-Nov,2006.

Visiting Scientist, University of Tokyo, Japan, Sept.-Oct,2007.

Invitation to Visit , University of Sherbrooke, Quebec Canada, May2008-Nov.2008.

Invitation to Visit Institute of Physics, Budapest, Hungary, April 2011.

Visiting Scientist, University of Halle, Halle, Germany, May-July 2012.

Visiting Scientist, University of Kaisarlautern, Germany, Oct-Nov 2016.

Visiting Professor (Professor Tutler 'C', Highest Academic Position in Mexico), Universidad Autonoma Metropolitana (UAM), Iztapalapa, Mexico City, Mexico 21 Sept 2018- 20 September2019

Association With Professional Bodies

Member International Centre for Theoretical Physics (ICTP), Trieste, Italy, India Chapter, membership No. 258.

Member Committee of Courses for B.Sc.(H), M.Sc. and Research, Delhi University, Delhi-110007, India, from July 2001 to June 2003.

Member Organizing Committee (Treasurer) "International Conference on Atomic, Molecular and Chemical Physics with applications" (CDAMCP), held at University of Delhi, Delhi-110007, India, March 20-22, 2002.

Member organizing Committee (Treasurer) "2nd International Conference on Atomic, Molecular and Optical Physics with applications" (CDAMOP), held at University of Delhi, Delhi-110007, India, March 21-23, 2006.

Co-convenor National Workshop on Computational Science, University of Delhi, India, July1-14, 2010.

Member organizing Committee "3rd International Conference on Current Development in Atomic, Molecular, Optical and Nano Physics with Application (CDAMOP) (14-16, Dec 2011) University of Delhi, Delhi- 110007, India.

Member organizing Committee (Treasurer) International Light-Cone Conference 2012 (LC2012-II) at the Department of Physics & Astrophysics, University of Delhi, Delhi-110007, India. 10-14 December 2012 University of Delhi, Delhi- 110007, India.

Member organizing Committee Recent Advances in Materials & Field Theory" (NCRAMFT-2K15) on December 28-29, 2015., BPIT, New Delhi.

Collaborations with following professors across the globe :

Professor K.L.Baluja, Delhi

Professor M.Mohan, Delhi

Professor K.D.Sen, Hyderabad

Professor M.le. Dournef, France

Professor K. Yamashita, Japan

Professor J.Berakdar, Germany

Professor D. Sugny, France

Professor R.P. Sagar, Mexico

Professor Norberto Aquino, Mexico

Professor G.Lefikidis, Germany

Professor W. Hubner, Germany



Editorial Experience

Reviewer

Reviewer in following international publications:

Physics Letters A,
Journal of atomic molecular and optical physics (Hindawi),
Journal of Luminescence,
Optics Communications,
Superlattices and Microstructures
Indian Journal of Pure and Applied Physics.
Indian Journal of Physics
Optics and Photonics Journal
Physical Science International Journal
The European Journal of Physics-Plus
Thin Solid Films (Elsevier)
Physica E
IEEE transactions on Plasma Science
Applied Surface Science
Material Science and Engineering
Journal of Physics B (IOP)
Journal of Physics Communications (IOP)

Molecular Physics

Chemical Physics

Physics of Plasmas

Other Activities

List of Students awarded Post-doctoral fellowship:

One (Dr. U. Arya) Post-doctoral fellowship of UGC, first one to be awarded to a Delhi University College-2014

Student awarded DST Women Scientist Scheme –A Project for Ph.D. :

Ms. Dipti Munjal

Student completed M.Tech. Projects:

Ms. Prajnashree Bal, School of Basic and Applied Sciences, GGSIP University, Dwarka (Jan.2014-Aug.2014)

Student completed B.Tech. Summer Projects:

Mr. Rohan Trivedi, Petroleum University, Dehradun (May-June 2011)

List of Students completed M.Sc. Summer Projects:

Ms. Neelam Tyagi Amity University (May-Jun'2015)

Ms. Nagma Amity University (May-Jun'2015)

Mr. Mohit Mann Amity University (May-Jun'2015)

Mr. Bhartendu Papnai ISM Dhanbad (May-Jun'2015)

Student completed M.Sc. Major Projects:

Ms. Neelam Tyagi Mann Amity University(Jan-Jun'2016)

