FACULTY PROFILE PROFORMA

	Title (Ms/Mr/Dr/Prof)	Prof.	First Name	PUNITA	Last Name	VERMA	Photograph
	Designation	PROFESSOR					
	Department	PHYSICS					
	Address (Official)	DEPARTMENT OF PHYSICS, KALINDI COLLEGE, (UNIVERSITY OF DELHI), EAST PATEL NAGAR, NEW DELHI 110008.					
	Phone No.						
	Email	punitaverma@kalindi.du.ac.in					

Education

Subject	Institution	Year	Details
B.Sc. Physics Honours, (Chemistry, Mathematics additional subjects)	Lady Brabourne College, Kolkata under University of Calcutta, West Bengal.	1991	
M.Sc. Physics	Jamia Millia Islamia, New Delhi.	1993	
Ph.D.	Justus-Liebig-University Giessen, Giessen, Germany.	2010	Experimental work at GSI (Centre for heavy ion Research), Darmstadt, Germany.

Career Profile

Organisation/Institution	Designation	Duration	Role
Vaish College,M.D. University, Rohtak, Haryana.	Lecturer and Senior lecturer	26/7/97 - 31/10/06	To teach B.Sc. Physics students of I^{st}, II^{nd} and III^{rd}yrs
Kalindi College, (University of Delhi), New Delhi	Senior Lecturer, Associate Professor and subsequently Professor	1/11/2006 - continuing	To teach B.Sc. Phy. Hons. & B.Sc. Phy. Sciences and Applied Phy. Sciences of I^{st}, II^{nd} and III^{rd}yrs and Life sciences students of I^{st} yr.

Research Interests/Specialization: Accelerator based Experimental Atomic Physics.
Research work is being carried out currently at Inter University Accelerator Centre (IUAC), New Delhi (An autonomous centre for research of UGC) under this field.

Research fields investigated: "Ion Induced L X-ray Emission in Rare Earth Elements." (Work done at Nuclear Science Centre, (N.S.C.) now known as Inter University Accelerator Centre (IUAC), New Delhi, India and Institute of Physics, (IOP), Bhubaneswar), India.

Ph.D. Thesis topic: "X-ray emission from heavy atomic collisions: couplings of inner shells in superheavy quasimolecules" **experimental work done at GSI, Darmstadt, Germany**, awarded by Justus-Liebig-University Giessen, Giessen, Germany.

Details of Projects (Major Grants/Collaborations) are mentioned below.

i) Two students have been awarded Ph.D. under my supervision at University of Delhi.
ii) Have guided several students of Undergraduate projects for various projects.

Apart from these

1. A Postgraduate Research Project entitled "X-ray spectroscopy of highly charged slow ions with atoms and solids" using the Low energy Ion beam facility (LEIBF), funded in house completely by Inter University Accelerator Centre (IUAC) is also currently going on.

Guidance of M.Sc. students from other universities.

1. Five students pursuing M.Sc. from **Amity University**have worked under different projects at IUAC as part of their dissertation/project of 6 months from Jan. to June 2015. Five students pursuing M.Sc. from **Amity University** have worked under different projects at IUAC as part of their dissertation/project of 2 months from May to June 2014. Four students pursuing M.Sc. from **Banasthali University** have worked under different projects at IUAC as part of their dissertation/project of 2 months from May to June 2014.

2. Two students pursuing M.Sc. from **Amity University**, one from **Punjab University Chandigarh** and one from **University of Delhi** are worked under different projects at IUAC as part of their dissertation/project of 2 months from May to July 2016.

3. One student having completed M.Sc. from **Kurukshetra University** worked under a research project of 4 months duration from May to August, 2016.

4. One Postgraduate student from Department of Physics, Amity Institute of Applied Sciences, Amity University, Noida did 6 months internship on topic "X-Ray based investigation of atomic inner-shell ionization by heavy ion impact".

E content:-

Have developed a virtual laboratory for all the Sem1-VI for both B.Sc. Phy. (H) as well as Physical Sciences:
https://drive.google.com/drive/folders/1HLnZkzljE9_OYMa7hRFYV1OQw9QzvP8d?usp=drive_link

Innovative pedagogy:Have developed an innovative pedagogy for teaching nuclear and particle physics courses at the college. This includes concentric method theory teaching and or cake and its icing method which expands the time available to the student to as long as annual system, although the student is

admitted to semester system.

Administrative Assignments / Contribution to corporate life

A. Curriculum development:

1. Was actively involved in the forming of the syllabus for the new FYUP program of DU for Physics honours and contributed actively in the committees formed for more than three papers (Modern physics, Optics, Nuclear and Atomic Physics) under the new scheme. I was also the convener of one of the papers namely "Nuclear and Atomic physics".

2. Was actively involved in the restructuring and revising of the Physics syllabus for B.Sc. Programme for Physical Sciences/Applied Physical Sciences /Life Sciences/Applied Life Sciences during the months of Feb. to June 2008. Acted as Convenor of one of the subcommittees for revision and restructuring of B.Sc. Program syllabus which was approved by DU. Was involved in preparing guidelines for the same syllabus.

B. Contribution to Corporate Life of the College.

2015-2016:

Myself am Convenor of the following committees:

Research committee, Academic Journal, Science e-Newsletter, Wall magazine committee, Infrastructure Furniture Maintenance and Cleanliness (IFMC) committee, Innovative practices, Academic society, Garden committee.

2009-2015 (i) Was Convener of the Inter College Cultural Festival "Lehren-2007". Specially the College campus and stage was innovatively decorated for the first time with huge thermocol cut outs of dance figures under my supervision. (ii) Was member of the prize distribution committee for Annual day of Kalindi College in Feb 2007 held at FICCI auditorium. (iii) Was one of the judges for "Miss Fresher's contest-2007". (iv) Was member of the prize distribution committee for Annual day of Kalindi College in Feb 2008. (v) Was member of the several committees for different events of "Lehren 2009" viz. Debate, Brainstorm, Rangoli, Dumb's day out and Tickle your funny bone. (vi) Was member of the alumni committee of Kalindi College for the session 2009-2013.(vii) Have been convener of sanitation hygiene and beautification committee of Kalindi College 2009-2013(viii) Have been Deputy-Superintendent of theory semester examinations in the session 2014-2015. (ix) Have been member of the admission committee each year since 2008 and have been convener of OBC admission cell in 2014 and convener of SC/ST admissions in 2015.

(x) Have been Head Examiner/ Paper setter for physics theory papers and External examiner for practical examinations several times appointed by University of Delhi.(xi) Have been regularly responsible for the making of Rangoli for each and every cultural function of our college and have won appreciation several times due to the excellent group work that the students exhibit under me. (xii) Was also actively involved in the cultural program's of Vaish College, Rohtak for decoration of stage, contests of Rangoli making and flower pot decoration. (xiii) Have been member of the Science committee and Admission committee at Vaish College, Rohtak.

Member, SwachchtaAbhiyan Committee 2014-15.

Member of the discipline committee.

Chairperson; College Complaint Committee (CCC), Kalindi College,

Member Proctorial Board, Kalindi College, University of Delhi during 2010-2011

Convener ECA Admission Committee, Kalindi College, University of Delhi for the Academic session 2013-2014.

Convener "Physcom Society" (Academic Society of Physics and Computer Science Departments) of Kalindi College, University of Delhi during the year 2012-2013 and 2013-2014.

Convener of Quiz-Time in Leheren'2016.

Students welfare

Each year students are taken to **IUAC** for exposure to research facilities. Letters of recommendation are provided to students for summer projects in Universities in India and abroad. The students are taken to various lectures by eminent scientists held within Delhi at different academic venues.

Contribution to Skill Development:

Through the innovative project KC 10, 201, 304 the students working under it were taught to develop the following skills:

iii) How to do research in science.
iv) Doing literature survey.
v) Writing scientific research papers for research journals.
vi) Survey of markets for purchase of goods.
vii) Process of purchase of goods
viii) Maintenance of accounts and bills.
ix) Maintenance of stock register and importance of audit.
x) Interpretation of financial rules.

Teaching Experiences (Subject/Courses taught)

Statistical mechanics, atomic physics, nuclear physics, particle physics, Elements of modern physics, optics, thermodynamics, quantum mechanics, molecular physics, radiation safety, radiation and it applications, particle physics to
B.Sc.(H) & (P.S., A.P.S.) I, II, III yrs.
Practical Labs:
Took various practical labs for B.Sc. (H) Physics (Annual/Semester/FYUP mode, NEP) and B.Sc., Physical Sciences.

Research Guidance

Two Students have been awarded Ph.D. at University of Delhi.

	Have guided students of Undergraduate students for various projects.			
	Publication (Peer Reviewed/Indexed Journals)			
	Year of Publication	**Title**	**Journal (Name of the journal. Vol Issue ISSN)**	**Co-Author**
	1996	Measurement of M x-ray production cross sections in gold by proton, oxygen and nickel ion impact	Nuclear Instruments and Methods in Physics Research B119, 317 / ISSN: 0168-583X	
	1997	M x-ray production cross-section measurements in Pb and Bi due to the impact of protons and nickel ions	Journal of Physics B 30, 2359/ ISSN: 0953-4075	
	1998	Outer shell spectator vacancies in Pt caused by 64 to 88 MeV S-ion impact	Radiation Physics and Chemistry 51, 411/ ISSN: 0969-806X	
	2000	Multiple Ionisation in Yb due to N-, Si- and Ti-ion impact	PhysicaScripta 61, 335 /ISSN: 0031-8949	
	2002	Lifetime of 1s2s2p 4P5/2 in V^{20+} using Beam-foil Techniques	Physical Review A, 66, 052510 /ISSN: 1050-2947	
	2005	Charge exchange and x-ray emission in 70 MeV/u Bi–Au collisions	Nuclear Instruments and Methods in Physics Research B 235, 309/ ISSN: 0168-583X	
	2006	Probing superheavyquasimolecular collisions with incoming inner shell vacancies	Nuclear Instruments and Methods in Physics Research B 245, 56/ ISSN: 0168-583X	
	2006	Electron gas polarization effect induced by heavy H-like ions of moderate velocities channelled in a silicon crystal	Nuclear Instruments and Methods in Physics Research B 245, 47/ ISSN: 0168-583X	
	2006	Spectroscopy of superheavyquasimolecules	Radiation Physics and Chemistry 75, 214 / ISSN: 0969-806X	
	2006	Impact parameter dependent charge exchange studies with channeled heavy ions	Proceedings of ICPEAC 2005 in world scientific, 539/ ISSN:978-981-270-412-2	
	2006	State-Selective X-ray Study of the Radiative Recombination of U^{92+} Ions with Cooling Electrons	Proceedings of ICPEAC 2005 in world scientific, 289 / ISBN:978-981-270-412-2	
	2006	Ion slowing down and charge exchange at small	Nuclear Instruments and Methods in Physics Research B 245, 1 / ISSN: 0168-583X	

		impact parameters selected by channeling: superdensity effects		
	2007	Using channeling properties for studying the impact parameter dependence of electron capture by 20 MeV/u uranium ions in a silicon crystal	Physical Review A 76, 062901 /ISSN: 1050-2947	
	2009	The enhancement effect in K-shell radiative recombination of U^{92+} ions with cooling electrons	Europ. Phys. Journ.-Special Topics 169, 15 / ISSN: 1951-6355	
	2009	Observation of enhancement in K-shell radiative recombination of U^{92+} ions with cooling electrons	Journal of Physics: Conference Series 194 062017 / ISSN: 1742-6588	
	2011	Inner shell couplings in transiently formed superheavyquasimolecules	PhysicaScripta T 144 014032 / ISSN: 0031-8949	
	2011	X-ray emission from Heavy Atomic collisions: inner shell vacancy transfer and couplings: couplings of inner shells in superheavyquasimolecules	http://geb.uni-giessen.de/geb/volltexte/2011/8180/	
	2012	Shell-differential electron capture in heavy ion-atom collisions at moderate collision velocities	Journal of Physics: Conference Series 388 082008/ ISSN: 1742-6588	
	2012	Enhanced radiative recombination of U^{92+} ions with cooling electrons for the K-shell	Journal of Physics: Conference Series 388 062044 / ISSN: 1742-6588	
	2012	X-ray emission from Heavy Atomic collisions: inner shell vacancy transfer and couplings: couplings of inner shells in superheavy quasimolecules	GSI Dissertation 2011-12 December	
	2012	Shell-differential electron capture in heavy ion-atom collisions at moderate collision velocities.	Journal of Physics: Conference Series 388 082008.	

	2012	Enhanced radiative recombination of U^{92+} ions with cooling electrons for the K-shell	Journal of Physics: Conference Series 388 062044.	
	2013	Fast Ion Surface Energy Loss and straggling in the Surface Wake Fields	Phys. Rev. Lett. 110 163203. ISSN: 0031-9007	
	2017	Relationship between and effect of inelastic excitations and transfer channels on sub-barrier fusion enhancement	Phys. Rev. C, 96, 014614	
	2017	Rutherford backscattering spectrometry: an analytical technique for near surface analysis	Yearly Academic Journal of Kalindi College, ISSN: 2348-9014 Pg 24-30	
	2017	PIXE: A novel technique for sustainable environment management	Yearly Academic Journal of Kalindi College, ISSN: 2348-9014 Pg 10-23	
	2017	X-Ray Fluorescence and detection of contamination in environmental samples: trace and ultra-trace levels	Yearly Academic Journal of Kalindi College, ISSN: 2348-9014 Pg 49-57	
	2017	Molecular Orbital interpretation to the couplings in collisions of 2.5 and 3 MeV Xe10+, 12+- Au and Zr systems.	Journal of Physics: Conference Series, ISSN No. online: 1742- 6596, Vol. 875, Pg. 092029.	
	2018	An Introduction to X-Ray Free Electron Lasers (XFEL)	Published in Vol. 17 of the Yearly Academic Journal of Kalindi College, University of Delhi, ISSN: 2348-9014. Pg No. 18-22.	
	2018	Synchrotron: An emerging source of X-ray radiation and its applications in versatile branches of science	Published in Vol. 17 of the Yearly Academic Journal of Kalindi College, University of Delhi, ISSN: 2348-9014 Pg No. 23-33	
	2018	Detecting the elemental constitution of environmental samples in Delhi and surrounding regions using XRF	*P. C. Deshmukh et al. (eds.), Quantum Collisions and Confinement of Atomic and Molecular Species, and Photons*, Springer Proceedings in Physics, **Vol. 230**, **ISBN:978-981-13-9969-5**, 199-210. **DOI:**https://doi.org/10.1007/978-981-13-9969-5_19	
	2020	An Introduction to X-Rays based Investigation Of Superheavy Systems	*Yearly Academic Journal of Kalindi College, University of Delhi*, 2020, **Vol. XIX**, **ISBN:2348-9014** , 35-41	
	2021	Parametric Evaluation of Ion–Atom Collision Processes	*Yearly Academic Journal of Kalindi College, University of Delhi*, 2021, **Vol. XX**, **ISBN:2348-9014** , 19-29	
	2022	Preparation of elemental Thin foils for exploring collision-induced atomic processes	*S.B. Krupanidhi et al. (eds.), Advanced Functional Materials and Devices*, Springer Proceedings in Materials, **Vol. 14**, **ISBN:978-**	

			981-16-5971-3, 163-170. **DOI:**https://doi.org/10.1007/978-981-16-5971-3_19	
	2022	Inner-shell ionisation of Xe^{q+}-Au and Pb collision systems : MO picture	*Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, **Vol.531, 9-23, 2022** https://doi.org/10.1016/j.nimb.2022.08.010	

Seminar/Workshop/Conferences Presentation/Organisation

A. List of Research papers presented in International Conferences :-

1. Multiple Ionisation in Yb due to N-, Si- and Ti-ion impact: **PunitaVerma *et al.***, Presented at the IXth International Conference on the Physics of Highly Charged Ions HCI-98, (14th - 18th Sept., 1998), Bensheim, GERMANY.
Abstract No. C 47 pg- 151.

2. L-subshell Ionization Studies in Tungsten by Si-ion impact: D.P.Goyal, **PunitaVerma*et al.***, Presented at the Ist International Conference on " Current Developments in Atomic, Molecular and Chemical Physics with Applications" (CDAMCP) from March 20th-22nd, 2002, New Delhi, India.
Abstract No. P30 pg- 40.

3. Multiple Ionization produced in Ho due to N- and Ag-ion impact: **Punita Verma*et al.***, Presented at the Ist International Conference on "Current Developments in Atomic, Molecular and Chemical Physics with Applications" (CDAMCP) from March 20th-22nd, 2002, University of Delhi, New Delhi, India.
Abstract No. P57 pg- 54.

4. Heavy Ion Induced L x-ray emission in rare earth elements: **Punita Verma *et al.,*** Presented at the "XIXth International Conference on X-ray and Inner-Shell processes" from June 24-28, 2002, University di Roma "La Sapienza", Rome, Italy.
Abstract No. P3/THU-17 pg- 117.

5. L x-ray emission studies in rare earth elements due to N- and Ag-ion impact: **Punita Verma *et al.*,** Presented at the "XIth International Conference on the Physics of Highly Charged Ions, HCI-2002" from Sept. 1-6, 2002, University of Caen, GANIL, France.
Abstract No. B3-2-3, pg- 109.

6. Ionisation and Fragmentation of C^{60} by 20 MeV/u Xe^{53+}: H. Braeuning, ...**P. Verma *et al.***, presented at the EAS (Energetic Atomic Collisions)-Frühjahrstagung held at Riezlern, Austria, from 8th February – 13th February 2004.

7. Deceleration of highly charged, heavy ions in a crystal: E. Testa, ..and **P. Verma,** presented at21st International Conference on Atomic Collisions in Solids (ICACS), held at Genova, Italy, July 4-9 2004.
Abstract no. POSSR39

8. Vacancy transfer in inner shells of SuperheavyQuasimolecules: **PunitaVerma*et al.***, presented at the Eighth European Conference on Atomic and Molecular Physics (ECAMP-VIII) held at Rennes, France, July 6-10, 2004.
Abstract No. 3-131.

9. Charge exchange and x-ray emission in 70 MeV/u Bi – Au collisions: **Punita Verma *et al.***, presented at the HCI-04 held at Vilnius, Lithuania, Sept. 6-10, 2004.
Abstract No. B1-28, pg- 168.

10. Probing superheavyquasimolecular collisions with incoming inner shell vacancies: **Punita Verma *et al.***, presented at the International Conference on Swift Heavy Ions in Matter (SHIM-05), held at Aschaffenburg, Germany, May 28-31, 2005.

11. Spectroscopy of superheavyquasimolecules: **PunitaVerma *et al.*,** presented at the "XXth International Conference on X-ray and Inner-Shell processes (X-05),"July 4-8, 2005,The University of Melbourne, Victoria, Australia.

12. State selective x-ray study of radiative recombination of U^{92+} ions with cooling electrons. M. Pajek, ….., **P. Verma *et al.***, presented at the "XXIV International Conference on Photonic, electronic and atomic Collisions, ICPEAC-05", July 20-26, 2005, Rosario, Argentina.

13. Impact parameter dependent electron capture and energy loss by decelerated H-like heavy ions. D. Dauvergne, ….., **P. Verma *et al.***, presented at the "XXIV International Conference on Photonic, electronic and atomic Collisions, ICPEAC-05", July 20-26, 2005, Rosario, Argentina.

14. X-ray emission from radiative recombination of bare uranium ions with electrons. D. Banas, ……, **P. Verma *et al.***, presented at the 3rd Conference on the elementary processes in atomic systems, (CEPAS-2005), 31 Aug-2 Sept., 2005, University of Miskolc, Hungary.

15. "Inner shell vacancy transfer in 69 MeV/u U^{q+}-Au collisions."**P. Verma *et al.*,**presented at the 2nd International Conference on "Current Developments in Atomic, Molecular and Optical Physics with Applications" (CDAMOP),March 21-23, 2006, University of Delhi, New Delhi, India.

16. "Angular distribution of X-rays from recombination of bare uranium ions with low energy electrons". M. Pajek, ….**P. Verma *et al.*, p**resented at the "XIIth International Conference on the Physics of Highly Charged Ions, HCI-2006" from 28th Aug. to 1st Sept. 2006, Queen's University Belfast, Northern Ireland, UK. *Abstract No. B2-56 selected contribution for oral presentation by M. Pajek.*

17."Exploration of overcritical fields by transiently formed superheavyquasimolecules", **P. Verma *et al.*** presented at the 7th SPARC – Stored Particle Atomic Physics Research Collaboration meeting at Lanzhou, China, from 24th -27th Aug., 2010.

18. "Inner shell couplings in transiently formed superheavyquasimolecules" oral presentation of selected contributions presented at the "15th International Conference on the physics of Highly Charged Ions–HCI 2010" held in Shanghai, China from 29thAug.-3rd Sept., 2010.

19. "Deceleration of H-like uranium ions in a crystal", D. Dauvergne, **……. ,P. Verma *et al.*,** presented at the "Channelling 2010" the "4th International Conference on Charged and Neutral Particles Channelling Phenomena", Ferrara (FE), Italy, from 3rd - 8th Oct., 2010.

20. "Shell-differential electron capture in heavy ion-atom collisions at moderate collision velocities" **P. Verma *et al***.presented at the"XXVII International Conference on Photonic, electronic and atomic Collisions, ICPEAC-11", held in Belfast, U.K. from 27th July – 2ndAug., 2011.

21. "Enhanced radiative recombination of U^{92+} ions with cooling electrons for the K-shell: D. Banas, ...**P. Verma *et al***.presented at the"XXVII International Conference on Photonic, electronic and atomic Collisions, ICPEAC-11", held in Belfast, U.K. from 27th July – 2ndAug., 2011.

22. "Light and Heavy ion induced L x-ray emissionin Sm and Yb: the Molecular Orbital picture", **P. Verma *et al***. presented at the 3rd International Conference on "Current Developments in Atomic, Molecular, Optical and Nano Physics with Applications" (CDAMOP), Dec.14th -16th, 2011, University of Delhi, New Delhi, India.

23. Investigating supercritical fields by quasimolecular collisions of superheavy atomic systems. **P. Verma *et al***. presented at the VIth International

Conference on the Physics of Highly Charged Ions HCI-2012, (2^{nd}–7^{th} Sept. 2012), Heidelberg, GERMANY.

24. Molecular orbital perspective for inner shell couplings: Level diagrams. Punita Verma, ***et al***.presented at the "XXIX International Conference on Photonic, electronic and atomic Collisions, ICPEAC-13", held in Toledo, Spain from 22^{nd}July – 28^{th} July, 2015.

25. "Molecular Orbital interpretation to the couplings in collisions of 2.5 and 3 MeV Xe10+,12+-Au and Zr systems." **Punita Verma *et al*** . presented at the "XXX International Conference on Photonic, electronic and atomic Collisions, ICPEAC-17", held in Cairns, Australia,from 26thJuly – 1st August, 2017.

26. "Multiple Ionization in Au by 120 and 200 MeV Ag-ions impact"..**P.Verma *et al*** ., presented at the 13^{th} Asian International seminar on Atomic and Molecular Physics, organized by Tata Institute of Fundamental Research from 3^{rd}-8^{th} December, 2018.

27. "Formation of Quasi-Molecules in Adiabatic Heavy Ion Atom Collisions"..**P.Verma*et al*** ., presented at the 13^{th} Asian International seminar on Atomic and Molecular Physics, organized by Tata Institute of Fundamental Research from 3^{rd}-8^{th} December, 2018.

28. Review of Metal contamination of environmental from Delhi NCR" International Conference on Changing environment: Understanding the emerging challenges and their management strategies organised by Zoology Dpt, Kalindi College, DU from 11^{th} to 12^{th} April 2019.

29. "Line Resolved M-Shell X-Ray Investigation of Heavy Z Systems at Low Ion Energies" C. V. Ahmad, ... ,P. Verma et al., presented at international conference on atomic, molecular, optical and nano physics with applications (CAMNP-2019) Organized by Department of Applied Physics, Delhi Technological University, Delhi, Delhi,India from 18-20,December,2019, ISBN:978-81-942877-3-5(Ebook), 978-81- 942877-2-8, 122.

30. “Spectator vacancies in Au induced by Low Energy Ag-Ions” R. Gupta, ... ,C. V. Ahmad, ... ,P. Verma et al., presented at International Conference on Atomic, Molecular, Optical and Nano Physics with applications (CAMNP-2019), organized by Department of Applied Physics, Delhi Technological University, Delhi, India from 18-20, December, 2019, ISBN:978-81-942877-3-5(Ebook), 978-81-942877-2-8, 121.

31. “Role of high purity thin films in X-ray based investigations of ion-atom collisions” Ruchika Gupta, ... ,Ch. Vikar Ahmad, ... ,P. Verma et al., presented at International Conference on Advances in Smart Materials and Emerging Technologies, jointly organized by Research and Consultancy Wing, Department of Applied Sciences and Humanities and OSA Student Chapter of Indira Gandhi Technical University for Women, Delhi, India from 23-24 January, 2020, ISBN:978-81-85255-67-5. Abstract
Book Pg no. 127

32. “Study of thickness dependent surface morphology of carbon backed Sn thin films” C. V. Ahmad, ... ,P. Verma et al., presented at International Conference (Online) on Ion Beams in Materials Engineering and Characterizations (IBMEC-2020) , organized by Inter-University Accelerator centre, New Delhi, India from 08-11 December, 2020, Abstract Book Pg no. 97

33. “Elemental thin films for exploring collision-induced atomic processes” C. V. Ahmad , ... ,P. Verma et al., presented at International Conference (Online) on Advanced Functional Materials and Devices (AFMD-2021), organized by Department of Physics and Internal quality assurance cell, Atma Ram Sanathan Dharma College, University of Delhi, Dhaula Kuan, New Delhi, India from 03-05 March, 2021, Abstract Book Pg no. 88.

34. “Molecular orbital formation by low energy Xe-ion impact on Pt and Au” C. V. Ahmad, ... ,P. Verma et al., presented at 32nd International Conference

on Photonic, Electronic and Atomic Collisions (ViCPEAC), organized by Atomic, Molecular and Optical Physics Division of the European Physical Society, Remotely from 20-23 July, 2021, Abstract Book Pg no. 93.

35. "Formation of united atomic systems during heavy-ion–heavy-atom collisions" R Gupta, ... ,C. V. Ahmad, ... ,P. Verma et al. presented at 32nd International Conference on Photonic, Electronic and Atomic Collisions (ViCPEAC), organized by Atomic, Molecular and Optical Physics Division of the European Physical Society, Remotely from 20-23 July, 2021, Abstract Book Pg no. 92.

36. "Superheavy quasimolecular formation in collision of Xeq+ ions with Au" C. V. Ahmad, ... ,P. Verma et al., at 18th Topical Workshop of Stored Particles Atomic physics Research collaboration (SPARC), organized by GSI Helmholtz Centre for heavy Ion Research, Remotely from 06-09 September, 2021, Abstract Book Pg no. 43.

B. List of research papers published in National symposia/Workshops/Meetings:-

1. Position sensitive detector for charged particle and low energy photon detection: S. Shatendra, **PunitaVerma*et al.***; presented at the Xth National Symposium on Radiation Physics, (17th-20thAugust, 1993), Kalpakkam and Madras.
Abstract book pg - [165].

2. Study of X-ray spectra in Cu ion-Cu atom collision in 65-117 MeV projectile energy region: **Punita Verma *et al.*;** presented at the DAE Symposium on Nuclear Physics, Dec 27-30, 1993 University of Calicut, Calicut. *Abstract book pg - [488].*

3. Instrumentation for Atomic physics studies: **Punita Verma *et al.*;** presented at the Workshop on Instruments and Techniques for the Accelerator based experiments. Nuclear Science Centre, New Delhi, 1994.

4. Multiple ionization in ^{74}W by 2.5-3.5 MeV/amu Si-ion impact: J.S.Braich, D.P.Goyal, **PunitaVerma**, A.Mandal and H.R.Verma; X-Ray Centennial Celebrations, National Seminar on X-ray Spectroscopy, (16-18 October, 1995), Nagpur University.
Abstract book pg - [IV.4].

5. Study of multiple ionization, alignment of atomic inner shells and level widths of various levels in different elements bombarded with heavy ion beams: H.R.Verma, **PunitaVerma** and J.S.Braich, Presented at the Workshop on High resolution and Auger electron spectroscopy with high energy heavy ion-beams, (26^{th} Feb, 1996), Nuclear Science Centre, New Delhi.
Abstract book

6. Detailed Literature Survey of the experiments conducted with Curved Crystal Spectrometer: **Punita Verma**, Presented at the Meeting of the working group of "High resolution X-ray spectroscopy with high energy heavy ion beams", (26th Aug.1996), Nuclear Science Centre, New Delhi.

7. Spectator vacancies for L x-ray emission in Ta caused by 3 to 3.5 MeV/u S-ion impact: JasbirS.Braich, **PunitaVerma** and H.R.Verma, Presented at Indian Science Congress-84th session, (3-8 January, 1997), University of Delhi.

8. Outer shell spectator vacancies in Pt caused by 64 to 88 MeV S-ion impact: Jasbir S. Braich, **PunitaVerma** and H.R.Verma, Presented at The International Symposium on Radiation Physics ISRP-7 (24th - 28th Feb, 1997), University of Jaipur and SINP.
Abstract No. RF 29 pg- 46,47.

9. Intensity ratios of Yb due to proton and N-ion impact: **PunitaVerma**, Jasbir S. Braich and H.R.Verma, Presented at the Fifth symposium on Radiation Physics at Dayanand P.G. College, Hissar, *CP4 (1997) 15.*

10. Lifetime measurement of metastable states in He-like Vanadium ions: T. Nandi, **P. Verma *et al.***, Presented at the XIIth National Conference on Atomic & Molecular Physics December 29 1998 - 2 Jan. 1999. University of Udaipur.
Abstract book pg. 136.

11. L x-ray production cross sections of $_{62}$Sm and$_{66}$Dyby 65-115 MeV I-ion impact: **Punita Verma**, A. Mandal and H.R.Verma, presented at the Seventh symposium on Radiation Physics (Patiala chapter), March 2001, Punjabi University Patiala.
MS-40, *Abstract book pg. 87*.

12. Projectile charge dependence of vacancy transfer in heavy-ion heavy-atom collisions: **P. Verma *et al.***, presented at the XVth National Conference on Atomic & Molecular Physics (NCAMP-XV), December 20-24, 2004. PRL Ahmedabad.

13. X-ray Emission from Asymmetric and Symmetric Heavy Collision Systems – inner shell vacancy transfer and couplings**P. Verma *et al.***, presented at the XVIth National Conference on Atomic & Molecular Physics (NCAMP-XVIth), Jan 8-11, 2007, TIFR, Mumbai.

14. Probing superheavyquasimolecular collisions with incoming inner shell vacancies: **P. Verma, invited talk at the "DAE-BRNS Symposium on Atomic, Molecular and Optical Physics" incorporating XVIIth National Conference on Atomic & Molecular Physics (NCAMP-XVIIth), Feb. 10-13, 2009,held at Inter University Accelerator Centre (IUAC), New Delhi.**

15."Validity limit of direct ionization theories for ion-atom collisions", **P. Verma *et al.***presented at the "2nd DAE-BRNS Symposium on Atomic, Molecular and Optical Physics" This symposium is the 18th in the series of the National Conference on Atomic & Molecular Physics (XVIII NCAMP) of ISAMP held at Karnatak University, Dharwad, Karnataka, India from 22nd to 25th Feb., 2011.

16. Ion atom collisions in the low (<4 MeV/u) and high energy regime (~70 MeV/u), **P. Verma *et al.***presented at the "Workshop on Highly Charged Ions

and Atomic Collisions (WHCI-2012)", from 28-30th March, 2012, TIFR, Mumbai.

17. Harnessing of wind energy from high speeding metros, **P. Verma *et al.*** presented at "Indo German workshop on Advanced materials for future energy requirements (WAMFER)-**2012**"jointly organized by the University of Delhi, India and the Max Planck Institute for Polymer Research, Mainz, Germany from 29th-30th November, 2012.

18. Correlation diagrams for inner shell couplings: MO picture, **P. Verma *et al.*** presented at the 3rd DAE-BRNS symposium on atomic, molecular and optical physics, AMOP-2012, organized by Indian Institute of Science Education and Research –Kolkata. Dec 14 - 17, 2012.

19.Harnessing 'GREEN' Wind Energy produced by high speeding Metro Trains using Turbines" P. Verma et al.presented at the "Third National Conference on Innovations in Indian Science Engineering & Technology (Feb 25-27, 2013), organized by Swadeshi Science movement of India, Delhi at CSIR, National Physical Laboratory.

20. "Energy and efficiency calibration of ultra low energy germanium detector" Ruchika and **PunitaVerma** presented at National Conference on "Redefining Science Teaching: Future of Education" (March 7-9, 2013) organized by Acharya Narendra Dev College, University of Delhi.

21. Utilization of Wind Energy produced by High Speeding Metros" S. Roy, **P. Verma*et al.*** presented at National Conference on "Redefining Science Teaching: Future of Education" (March 7-9, 2013) organized by Acharya Narendra Dev College, University of Delhi.

22.Data Tabulation of x-ray cross-section measurements in ion-atom collision experiments performed in India: J. Bhardwaj and **Punita Verma**; presented at the National Conference on "Striving & Thriving Towards Diffusion of Student-driven Research in Science and Technology for Inspired Learning"

organized by Embedded Systems & Robotics Centre (ESRC) and Department of Electronics Maharaja Agrasen College, University of Delhi held on 16-17 October, 2014. Proceedings **ISBN No. 978-81-7273-958-4** pg 119.

23. How wind energy could fuel future power needs: M. Ganguly, …., **P. Verma**; presented at the National Conference on "Striving & Thriving Towards Diffusion of Student-driven Research in Science and Technology for Inspired Learning" organized by Embedded Systems & Robotics Centre (ESRC) and Department of Electronics Maharaja Agrasen College, University of Delhi held on 16-17 October, 2014. Proceedings **ISBN No. 978-81-7273-958-4** pg 171.

24. Study of hybrid telescope detector (E-delta E) for heavy ion detection: Lakshmi, ……, **Punita Verma;** presented at the National Conference on "Striving & Thriving Towards Diffusion of Student-driven Research in Science and Technology for Inspired Learning" organized by Embedded Systems & Robotics Centre (ESRC) and Department of Electronics Maharaja Agrasen College, University of Delhi held on 16-17 October, 2014. Proceedings **ISBN No. 978-81-7273-958-4**pg 241.

25. Understanding the energy and efficiency response of a low energy germanium detector: Neelam Shukla, ……, **Punita Verma;** presented at the National Conference on "Striving & Thriving Towards Diffusion of Student-driven Research in Science and Technology for Inspired Learning" organized by Embedded Systems & Robotics Centre (ESRC) and Department of Electronics Maharaja Agrasen College, University of Delhi held on 16-17 October, 2014. Proceedings **ISBN No. 978-81-7273-958-4** pg 246.

26. Metamorphosis of higher education through innovative approaches: **Punita Verma;** presented at the National Conference on "Striving & Thriving Towards Diffusion of Student-driven Research in Science and Technology for Inspired Learning" organized by Embedded Systems & Robotics Centre (ESRC) and Department of Electronics Maharaja Agrasen College, University

of Delhi held on 16-17 October, 2014. Proceedings **ISBN No. 978-81-7273-958-4** pg 305.

27.An Innovative approach to practicals in physics laboratory: Akansha, ……,**PunitaVerma** presented at the National Conference on "Striving & Thriving Towards Diffusion of Student-driven Research in Science and Technology for Inspired Learning" organized by Embedded Systems & Robotics Centre (ESRC) and Department of Electronics Maharaja Agrasen College, University of Delhi held on 16-17 October, 2014. Proceedings **ISBN No. 978-81-7273-958-4** pg 311.

28. Exploration of reaction mechanism at deep sub-barrier region for $^{28}Si+^{96}Zr$ system: Khushboo, …., **P. Verma*et al.*** presented at the DAE symposium on nuclear physics organized by Physics Department, Banaras Hindu University, Varanasi from 8-12 Dec. 2014.

29. Technology embellished teaching and learning:**P. Verma** presented at the First National Conference on Recent Trends in Instrumentation and Electronics (R-TIE 2015) organised by Shaheed Rajguru College of Applied Sciences for Women from 5-6 Jan. 2015.

30. Instrumentation in ion-atom collision experiments: Signal processing in x-ray detectors: Kusum, …., **P. Verma*et al.*** presented at the First National Conference on Recent Trends in Instrumentation and Electronics (R-TIE 2015) organised by Shaheed Rajguru College of Applied Sciences for Women from 5-6 Jan. 2015.

31. Fusion dynamics in sub barrier region for $^{28}Si+^{96}Zr$ system: Khushboo, ….,**P. Verma**, .. ***et al.***presented at the INDO-FRENCH CEFIPRA Seminar on 'Women in Science'organized jointly by the French Embassy in India, CEFIPRA and the Women in Science Panel of the Indian Academy of Sciences from3–5 February 2015.

32. "Harnessing electricity in humid air for smart cities" Akansha Tiwari and **PunitaVerma;** presented at the one day national conference on "Smart cities: challenges and vision ahead" organized by Shaheed Bhagat Singh College, University of Delhi on 6th April, 2015.

33. “Alternative for energy stressed cities” Sakshi, ...,**PunitaVerma;** presented at the one day national conference on “Smart cities: challenges and vision ahead”organized by Shaheed Bhagat Singh College, University of Delhi on 6th April, 2015.

34. “Fabrication, Assembly and testing ofmultiwire proportional counter”, L. Dagar, .., **P. Verma *et al.*** Presented at Second National conference on “Student driven research for inspired learning in science and technology” organized by Embedded Systems and Robotics Centre and Department of Electronics, Maharaja Agrasen College, D.U. held on 16-17 October, 2015. Proceeding available at:http://www.ijsrd.com/articles/NCILP010.pdf. pg 37-41. ORInternational Journal for Scientific Research and Development [Conference 1 : NCIL 2015] (2015): 37-41.

35. “Impact parameter dependent X ray investigations in heavy ion heavy atom collision”, S. Kumar, .., **P. Verma *et al.*** Presented at Second National conference on “Student driven research for inspired learning in science and technology” organized by Embedded Systems and Robotics Centre and Department of Electronics, Maharaja Agrasen College, D.U. held on 16-17 October, 2015. Proceeding available at:http://www.ijsrd.com/articles/NCILP015.pdf. pg 56-64.OR International Journal for Scientific Research and Development [Conference 1: NCIL 2015] (2015): 56-64.

36. “Preparation of gold target through electron vapour deposition and PARAs the Rutherford back scattering experiment setup @ IUAC”, S. Kumar, .., **P. Verma *et al.*** Presented at Second National conference on “Student driven research for inspired learning in science and technology” organized by Embedded Systems and Robotics Centre and Department of Electronics, Maharaja Agrasen College, D.U. held on 16-17 October, 2015. Proceeding available at:http://www.ijsrd.com/articles/NCILP018.pdf. pg 72-80. OR International Journal for Scientific Research and Development [Conference 1: NCIL 2015] (2015): 72-80.

37. “Feasibility Study of Conversion of Wind Energy to Electrical Energy at Delhi Metro Stations using Light Rotor Turbines”, S. Patwal, …, **P. Verma *et al.*** Presented at Second National conference on “Student driven research for inspired learning in science and technology” organized by Embedded Systems and Robotics Centre and Department of Electronics, Maharaja Agrasen College, D.U. held on 16-17 October, 2015. Proceeding available at:http://www.ijsrd.com/articles/NCILP033.pdf.pg 131-136. OR International Journal for Scientific Research and Development [Conference 1: NCIL 2015] (2015): 131-136.

38. “An overview of ion-atom collision experiments at IUAC, New Delhi” **Punita Verma,** Presented at “International topical conference on charged particle collisions and electronic processes in Atoms, Molecules and Materials, (q-PaCE 2016)9-11, Jan. 2016. Abstract book pg.43.

39.“An experimental set up for Ion atom collisions at low energy Ion beam facility of IUAC” S. Kumar, **P. Verma** and C.P. Safvan. Presented at “International topical conference on charged particle collisions and electronic processes in Atoms, Molecules and Materials, (q-PaCE 2016)9-11, Jan. 2016. Abstract book pg.184.

40. Small Wind Turbines: A way to Produce Green Electrical Energy, **P. Verma *et al.*** Presented at National conference on “Electrical energy: Safety and Conservation” organized by Swami Shraddhanand College, D.U. held on 22-23 January, 2016.

41.Wind Velocity Profiling at Delhi Metro Stations, **P. Verma *et al.*** Presented at National conference on “Advancements in Electronics and Computer Applications (NCAECA-2016)” organized by Department of Electronics and Computer Science, Shaheed Rajguru College of Applied Sciences, D.U. held on 4-5 February, 2016. Abstract book pg 69-73.

42. "Investigation of charge state and energy variation effects in collisions of 2.5 and 3 MeV $Xe^{10+, 12+}$ incident on Au and Zr: MO approach" **Punita Verma *et al*** ., presented at 21st National Conference on Atomic and Molecular Physics held at PRL, Ahmedabad, from 3rd to 6thJan, 2017.

43. "Rutherford backscattering spectrometry: an analytical technique for near surface analysis" **P. Verma**, T. Sharma ***et al*** . presented at National Seminar - **सक्षममहिला**, **सक्षमसमाज**: **एकवैज्ञानिकदृष्टिकोण**- A Paradigm Shift Towards Empowerment of Women organised by Kalindi College, University of Delhi, held on 3-4 February, 2017.

44. "PIXE: A novel technique for sustainable environment management" P. Verma, R. Gupta et al . presented at National Seminar -**सक्षममहिला**, **सक्षमसमाज**: **एकवैज्ञानिकदृष्टिकोण**- A Paradigm Shift Towards Empowerment of Women organised by Kalindi College, University of Delhi, held on 3-4 February, 2017.

45. "X-Ray Fluorescence and detection of contamination in environmental samples: trace and ultra-trace levels" P. Verma, R. Gupta *et al.* presented at National Seminar -**सक्षममहिला**, **सक्षमसमाज**: **एकवैज्ञानिकदृष्टिकोण**- A Paradigm Shift Towards Empowerment of Women organised by Kalindi College, University of Delhi, held on 3-4 February, 2017.

46. "Delhi Metro: A potential and promising future alternative source of renewable energy" P.Verma et al ., presented at National Seminar - ***सक्षममहिला***, ***सक्षमसमाज***: ***एकवैज्ञानिकदृष्टिकोण***- A Paradigm Shift Towards Empowerment of Women organised by Kalindi College held on 3-4 February, 217.

47. "Molecular effects in L-shell ionization of Au and Bi by slow Ag ions" ….**P. Verma *et al*** ., presented at 7th Topical Conference of the Indian Society

of Atomic and Molecular Physics organized by IISER, Tirupati and IIT, Tirupati, held on 6-8 January, 2018.

48."Detecting the elemental constitution of environmental samples in Delhi and surrounding regions using XRF" ….**P. Verma *et al*** ., presented at 7th Topical Conference of the Indian Society of Atomic and Molecular Physics organised by IISER, Tirupati and IIT, Tirupati, held on 6-8 January, 2018.

49."Detecting the elemental constitution of Environmental samples of Delhi and surrounding regions using XRF",…..**P. Verma *et al*** ., presented at National Science Day, 2018 organized by Indian National Science Academy and Indian Academy of Sciences on 28th February, 2018.

50. "Evaluation of metal concentration in Environmental samples of Delhi and surrounding regions using XRF",…..**P. Verma *et al*** ., presented at "21st National Symposium on Radiation Physics" held in RRCAT, Indore, India from 5th to7th March 2018.

51. "Celestia: The construction of an 8 inch dobsonian telescope",**P. Verma *et al*** .,presented at the National conference on "Fostering Quality Research in Higher Education" organized by Star Innovation Projects, Abdul Kalam Centre and Internal Quality Assurance Cell, Maharaja Agrasen College, University of Delhi from 23rd to 24th March 2018.

52. "Rare Isotope Beams : Production and Applications", ..**P. Verma *et al*** ., presented at the National conference on "Fostering Quality Research in Higher Education" organized by Star Innovation Projects, Abdul Kalam Centre and Internal Quality Assurance Cell, Maharaja Agrasen College, University of Delhi from 23rd to 24th March 2018.

53. "Physics at THz energies", ..**P.Verma *et al*** ., presented at the National conference on "Fostering Quality Research in Higher Education" organized by Star Innovation Projects, Abdul Kalam Centre and Internal Quality Assurance

Cell, Maharaja Agrasen College, University of Delhi from 23rd to 24th March 2018.

54."XRF: A Deterministic tool for Elemental Contamination", ..**P. Verma *et al*** .,presented at the National conference on "Fostering Quality Research in Higher Education" organized by Star Innovation Projects, Abdul Kalam Centre and Internal Quality Assurance Cell, Maharaja Agrasen College, University of Delhi from 23rd to 24th March 2018.

55. "Applications of XRF in Environmental Science and Atomic Physics" C. V. Ahmad, R. Gupta, K. Chakraborty, **P. Verma** presented in Theme meeting on Synchrotron based characterization techniques, organised by Amity Institute of Nanotechnology, Noida from September 4-5, 2018.

56. "Elemental analysis of Kalindi soil samples using XRF for toxicity assessment" **P. Verma *et al.***, presented at 2 day National Conference "Urban Environmental Sustainability" February 07-08, 2019 jointly organized by Zoology Department, Kalindi College, University of Delhi & Mahatma Gandhi Institute of Combating Climate Change (MGICCC), Govt. of NCT, Delhi.

57."Application of XRF and PIXE for investigation of heavy metal toxicity in Yamuna" **P. Verma *et al.***, presented at 2 day National Conference "Urban Environmental Sustainability" February 07-08, 2019 jointly organized by Zoology Department, Kalindi College, University of Delhi & Mahatma Gandhi Institute of Combating Climate Change (MGICCC), Govt. of NCT, Delhi.

58. "M-shell ionisation in Au and Pb: The Molecular Orbital Picture" C.V. Ahmad, R. Gupta, K. Chakraborty, M. Ganguly, D. Swami, **P. Verma** presented at 22nd National Conference on Atomic and Molecular Physics (NCAMP) Organized at Dept. of Physics, Indian Institute of Technology Kanpur in association with Indian Society for Atomic and Molecular Physics. UP, India from 25-29 March, 2019. Abstract Book Pg no. 72.

59. "M-Shell Ionization in Pb by Xe ion impact" C. V. Ahmad, ... ,P. Verma et al., presented at 22nd National Symposium on Radiation Physics (NSRP-22), organised by University Science Instrumentation Centre, Jawaharlal

	Nehru University, New Delhi, India from 08-10 November, 2019. Abstract Book Pg no. 166. 60 . "Heavy ion beam analysis of Au thin films" R. Gupta , ... , C. V. Ahmad, ... ,P. Verma et al., presented at 22nd National Symposium on Radiation Physics (NSRP-22), organised by University Science Instrumentation Centre, Jawaharlal Nehru University, New Delhi, India from 08-10 November, 2019. Abstract Book Pg no. 183 61. "Quantitative Evaluation of Water Pollutants Using XRF" C. V. Ahmad et al., ... ,P. Verma et al., presented at National Conference on Water Sustainability: Conservation, Policy, Ethics and Science, organised by Department of Environmental Studies and Srishti: Nature and Environment Society in Zakir Husain Delhi College, Delhi, India from 21-22 January, 2020. Abstract Book Pg no. 29. 62. "An Introduction to X-Rays based Investigation of Superheavy Systems" Yearly Academic Journal, Kalindi College, 2020, ISSN No. 2348-9014. 63. : Parametric Evaluation of Ion– Atom Collision Processes" Yearly Academic Journal, 2021 Kalindi College, 2020, ISSN No. 2348-9014. 64. "Preparation of elemental thin foils for exploring collision induced atomic processes "S.B. Krupanidhi et al. (eds.), Advanced Functional Materials and Devices, Springer Proceedings in Materials, Vol. 14 ISBN No. 978-981-16- 5971-3, 2022
	Awards & Distinctions
a	b) Obtained 2nd position in the University of Jamia Millia Islamia in M.Sc. Physics examination. c) Attended four international conferences with funding approved from U.G.C., C.S.I.R, INSA and D.S.T, New Delhi. The D.S.T. support is considered as a "Young scientist" award. Have attended five international conferences with funding approved by U.G.C., C.S.I.R, I.N.S.A and D.S.T. The D.S.T. support is considered as a "Young scientist" award. Have delivered **one invited talk** in an international conference. Have been offered support to attend 5 more such conferences by the above agencies.

d) Awarded scholarship by GSI, (Institute for heavy–ion research), Darmstadt, Germany for 1 year (1/8/2002 to 31/7/2003) to do research work for Ph.D. thesis at GSI.
e) Awarded the **DAAD** (German Academic Exchange Service Program) **sandwich model fellowship** for doing the experimental work for the Ph.D. thesis at GSI, (Institute for heavy –ion research), Darmstadt, Germany.
f) Awarded scholarship by GSI, (Institute for heavy–ion research), Darmstadt, Germany for 2 months (1/5/2005 to 30/6/2005) to complete research work for Ph.D. thesis at GSI.
g) Was awarded scholarship by GSI, Darmstadt, Germany from 21st May to 21st July, 2007 to work for a research project on atomic physics.
h) Was awarded scholarship by GSI, Darmstadt, Germany from 14th May to 14th July, 2010 to work for a research project on atomic physics.
i) Have been awarded **Indian National Science Academy (INSA)-DFG (German funding agency)** long term visit award under the Indo German bilateral exchange programme-2012.
j) Have been awarded the "**Teaching Excellence Award**" for the undergraduate research project KC-201 of whom I was the Principal investigator (mentioned above) by University of Delhi on its foundation day 1st May 2015.
k) Have been awarded the **Industry recommendation award** for the undergraduate research project KC-201 of whom I was the Principal investigator (mentioned above) at Antardhwani 2015-the academic festival of the University of Delhi.
l) Have been awarded the **Dinabandhu Sahu Memorial Award** for her significant contribution to Undergraduate Physics Teaching by Indian Association of Physics Teachers (IAPT) on 05-09-2019.
m) Have been awarded the **Distinguished teachers Award 2021** for her significant contribution to Undergraduate Physics Teaching by Lions Club Capital Greens, New Delhi on 06-12-2021.

Public Service/ University Service/ Consulting Activity

Had sensitized the students of Kalindi College for maintaining cleanliness in the college campus by assembling a group of students who cleaned the entire campus themselves in 2007.

Public Service

Have been trying to fulfil my social responsibility in the area of school education:

1. Have started an organisation called **"Delhi Association of Science Education (DASE)"** – the main aim of which is to train the school teachers in Delhi and NCR on "how to teach science" and to develop a common platform where school teachers can meet the scientists and researchers directly and learn through interaction/lectures/projects etc. 2 workshops have already been held successfully. Further and continuous work is under progress and efforts are on to bring the schools of Delhi and NCR within DASE.

2. Have been invited by Bal Bharti group of Public Schools (BBPS) training centre, Rohini, New Delhi to coordinate with resource persons for the conduct of a three day workshop for their PGT physics teachers from 18-20 May, 2015 and was invited to conduct two sessions during the workshop.

3. Am continuously involved with likeminded people to help and contribute towards education and school education in particular.

Organisation of conferences and workshops

1
2. Have been on the local organising committee of "DAE-BRNS Symposium on Atomic, Molecular and Optical Physics" incorporating XVIIth National Conference on Atomic & Molecular Physics (NCAMP-XVIIth), organized at the Inter University Accelerator Centre from 10th-13th of Feb., **2009**.

3. Have been the Convener of Workshop on "Accelerator based Atomic Physics" organized at the Inter University Accelerator Centre from 8th to 9th Aug., **2012**.

4. Have been on the local organising committee of "Indo German workshop on Advanced materials for future energy requirements (WAMFER)-**2012**"jointly organized by the University of Delhi, India and the Max Planck Institute for Polymer Research, Mainz, Germany from 29th-30th Nov., **2012**.

5. Have been on the local organising committee of "57th DAE symposium on Nuclear Physics" organised by University of Delhi from 3rd-7th Dec., **2012**.

6. Have been a member of the Academic Committee of "International Junior Science Olympiad (IJSO-2013)" organised by Homi Bhabha Centre for Science Education (HBCSE) and TIFR, Mumbai held in Pune from 3-11 Dec., **2013**.

7. Have been on the organising committee of Indo-German collaboration workshop "SPARC@TIFR" held on 28th -29th Jan., **2014** at TIFR, Mumbai.

8. Life Member of the "Swadeshi Science Movement of India (SSMD)".

9. Member of the Executive committee of "Swadeshi Science Movement of India (SSMD)" for the period (**2014-2016**).

10. Member of the Editorial Board of the "SSMD" e-Magazine "SWADESHI VIGYAN PATRIKA".

11. Executive member of Indian Society for Atomic and Molecular Physics (ISAMP) for the year 2012-**2014**.

12. Life Member of the "INDIAN PHYSICS ASSOCIATION **(IPA)".**

13. Convener, One day Workshop on 'Einstein and his year of miracles' by Prof A.K.Ghatak, 24th Sept **2014**, Kalindi College, DU partially sponsored by National Academy of Sciences along with Dr. Pushpa Bindal and Dr. Rachna Kumar of Kalindi College.

Projects(MajorGrants/ Collaborations)

S.No.1	Title/Subject of Research Project(s)	Major/Minor	PI/Co-PI	Period (Months) Year	Total Grants/Funding received (Rs.)	Name of Sponsoring/ Funding Agency
1	Exploration of quasimolecular radiation for superheavy systems (unified nuclear charge >100) : impact parameter dependent investigations	Major UFR No. 51318	pi	36 (2012-2016)	6,43,000	INTER UNIVERSITY ACCELERATOR CENTRE (IUAC), NEW DELHI

2	Conversion of mechanical energy to electrical energy in Delhi metro. (KC-101)	Major	pi	12 (2012-2013)	10,00,000	UNIVERSITY OF DELHI
3	Investigation of multi-nucleon transfer dynamics by heavy ion induced reactions using stable and exotic projectiles.	Major	co-pi	24	4,07,400	DEPARTMENT OF SCIENCE TECHNOLOGY (DST) AND GERMAN ACADEMIC EXCHANGE SERVICE (DAAD)
4	To Evaluate the Feasibility of Installing Wind Turbines in Metro(KC-201)	Major	pi	12 (2013-2015)	5,00,000	UNIVERSITY OF DELHI
5	X-ray spectroscopy of highly charged slow ions with atoms and solids	Major	pi	36 (2013-continuing	All funds available at IUAC	INTER UNIVERSITY ACCELERATOR CENTRE (IUAC), NEW DELHI
6	Innovative approach to practicals in Physics Laboratory	Minor	pi	12 (2014-2015)	30,000	NATIONAL ACADEMY OF SCIENCES (NASI), INDIA(DELHI CHAPTER)
7	Conversion Of Wind Energy To Electrical Energy At Delhi Metro Stations Using Light Rotor Turbines. (KC-304)	Major	pi	12 (2015-2016)	5,00,000 + 1,00,000 Additional grant	UNIVERSITY OF DELHI
8	Complete solution to the problems of practicals in Physics Laboratory	Minor	pi	12 (2015-2016)	70,000	KALINDI COLLEGE PRIZE MONEY OF ANTARDHWANI 2015 BY UNIV. OF DELHI

9	CELESTIA: through the eyes of a telecscope	Minor	pi	12 (2015-2016)	25,000	NATIONAL ACADEMY OF SCIENCES (NASI), INDIA (DELHI CHAPTER)
10	Molecular orbital approach to the inference of x-ray measurements at small inter atomic distances	Major UFR No. 58324	pi	36 (2016-continuing	6,43,000	INTER UNIVERSITY ACCELERATOR CENTRE (IUAC), NEW DELHI
11	Vedic Mathematics in Modern Era	Minor	PI	Research Project Completed		KALINDI COLLEGE
12	History of Indian Monuments and Scientific Architecture	Minor	PI	Research Project Completed		KALINDI COLLEGE
13	A pedagogical approach towards understanding techniques for accelerator based experiments	Minor	Sole PI	Research Project Completed		KALINDI COLLEGE
14	Research methodology for Physics Research	Minor	Sole PI	Research Project Completed		KALINDI COLLEGE
15	Scientific solution of manual scavenging.	Minor	PI	Research Project Completed		KALINDI COLLEGE
16	Student wellness: An strategy for student success through medicao-physiological and life style patterns	Minor	PI	Research Project Completed		KALINDI COLLEGE
17	Ayurveda: the alternative system of time tested medicine	Minor	PI	Research Project Completed		KALINDI COLLEGE
18	Student Wellness: Strategy For	Minor	PI	Research Project Completed		KALINDI COLLEGE

	Students Success Through Medical Diagnostics					
19	Employing mathematical methods and techniques for solutions of problems in Physics	Minor	PI	Research Project Completed		KALINDI COLLEGE
20	History of Education System in India and a comparison with the existent system	Minor	PI	Research Project Completed		KALINDI COLLEGE
21	Vedic mathematics- an essential of science	Minor	PI	Research Project Completed		KALINDI COLLEGE
22	Investigation of metal contamination in environmental samples across various regions of Delhi using X-Ray Fluorescence	Minor	PI	Research Project Completed		National Academy of Sciences, India (NASI),Delhi Chapter
23	Assessment of Polycystic Ovarian Syndrome in Indianfemale population and understanding the amelioration of its complication b lifestyle regulation.	Minor	PI	Research Project Ongoing		KALINDI COLLEGE
24	Science-Society Program: Science awareness and Indian contributions	Minor	PI	Research Project Ongoing		National Academy of Sciences, India (NASI),Delhi Chapter
25	Science in everyday life around us	Minor	Sole PI	Research Project Completed		KALINDI COLLEGE

	26	Evaluation of metal contamination in environmental samples using Atomic spectroscopic techniques across various regions of Delhi	Minor	Sole PI	Research Project Completed		KALINDI COLLEGE
	27	Women's participation in freedom movement	Minor	PI	Research Project Completed		KALINDI COLLEGE
	28	To investigate phytochemical analysis, water potential and osmatic pressure of some selected traditional medicinal plants of Delhi.	Minor	PI	Research Project Completed		KALINDI COLLEGE
	29	Heavy Ion-atom induced X-ray emission.	Minor	Sole PI	Research Project Completed		KALINDI COLLEGE

1. The exhibition at the academic festival of University of Delhi during Antardhvani DU 2015, innovation plaza lead to the media coverage in the form of articles in prestigious newspapers like PTI, Times of India, IBN LIVE, India Times, News Nation, Millenium Post, Navbharat times, Dainik Jagran, Rashtriya Sahara, Amar Ujala and NaiDuniya, dnaindia and the magazine Earth Care Optimized.

Other Details: Membership of professional bodies/societies

#	Name of Membership	Affiliating/Granting	From	To	Level
1	Life membership	INDIAN ASSOCIATION	2019-09-	2023-02-	National
2	Nominated Member for	NATIONAL ACADEMY	2019-07-	2023-02-	National
3	Life membership	SHAKTI -VIinana Bharati	2018-12-	2023-02-	National
4	Life membership	INDRAPRASTHA	2018-12-	2023-02-	National
5	Life membership	INDIAN PHYSICS	2013-12-	2023-02-	National
6	Life membership	SWADESHI SCIENCE	2013-02-	2023-02-	National
7	Life membership	INDIAN SOCIETY OF	1997-11-	2023-02-	National
8	Life membership	INDIAN SOCIETY	1997-11-	2023-02-	National

Short term visits to Institutions:-

1. Was invited by GSI, Darmstadt, Germany for May and June, 2005 to complete the Ph.D. work with their financial support.
2. Was invited by GSI, Darmstadt, Germany from 21st May to 21st July, 2007 to work for a research project with their financial support.
3. Was invited by GSI, Darmstadt, Germany from 14th May to 14thJuly, 2010 to work for a research project with their financial support.

Seminars/Talks delivered:-

1. Delivered a seminar on 'Ion-induced Lx-ray emission in rare earth elements' at the Atomic Physics division, GSI (Institute of Heavy-ion research), Darmstadt, Germany, 13th Feb., **2002**.
2. Delivered a seminar on 'Superheavy quasimolecular collisions with incoming inner shell vacancies' at the Atomic Physics division, University of Kassel, Kassel, Germany, June, **2005**.

3. Delivered a seminar on 'Probing superheavy quasimolecular collisions with prior-to- collision inner-shell vacancies'at the Atomic Physics division, University of Giessen, Giessen, Germany, June, **2005**.

4. Delivered a seminar on 'Probing superheavy quasimolecular collisions with incoming inner shell vacancies'at the Atomic Physics division, GSI (Institute of Heavy-ion research), Darmstadt, Germany, 22nd June, **2005**.

5. Invited for giving a talk on 'Probing superheavy quasimolecular collisions with incoming inner shell vacancies' at the "DAE-BRNS Symposium on Atomic, Molecular and Optical Physics" incorporating XVIIth National Conference on Atomic & Molecular Physics (NCAMP-XVIIth), organized at the Inter University Accelerator Centre (IUAC), New Delhi from 10th to 13th of Feb., **2009**.

6. Invited for giving a lecture series on 'Detectors', 'Data Acquisition and processing', 'Accelerator based experimental atomic physics', Preparation of an Ion-atom collision experiment' by DST-SERC school on Atomic and Molecular Physics, organized by Physical Research Laboratory (PRL), Ahmedabad, from 15th April - 5th May, **2009**.

7. Invited for giving a lecture series on 'Accelerators', 'Detectors', Ion-atom collisions part 1 and part 2. by Consortium for Educational Communication (CEC) for its Educational Multimedia Research Centres (EMRC) set up by the UGC called the EDUSAT Lecture series in June, **2009**.

8. Invited for giving a lecture on "Inner shell couplings in transiently formed superheavyquasimolecules" at the "15th International Conference on the Physics of Highly Charged Ions–HCI 2010" held in Shanghai, China from 29thAug.-3rd Sept., **2010**.

9. Invited to deliver a seminar on "X-ray emission from heavy atomic collisions: couplings of inner shells in superheavyquasimolecules" at Department of "Atomphysik", University of Giessen, **Germany** on 17th Dec. **2010**.

10. Invited to deliver a seminar on "Inner Shell ionization" at a workshop on "Accelerator based Atomic Physics" organized at the Inter University Accelerator Centre from 8th to 9th Aug., **2012**.

11. Invited to deliver a presentation at the meeting of "FAIR experiment evaluation committee (FEEC) of the Indo-FAIR co-ordination Centre of Bose Institute, Kolkata" held at Bose Institute, Kolkata on 1st August, **2014**.

12. Delivered a lecture on "Transformation of Physics education....." in the Third Annual Convention of Indian Association of Physics Teachers, RC-1 (Regional Council- Delhi & Haryana) on 15th April 2015.

13. Invited to deliver a talk at the "Seminar on Practicing Quality Culture in Institutions of Higher Education" organised by Maharaja Agarsen College, University of Delhi April 13, **2016**.

14. Presented an invited project presentation on "Heavy Metal Detection in Environmental Samples of Delhi using XRF and PIXE" underRES. Programme 01 Trace Element Research in UGC-DAE Consortium for Scientific Research, Kolkata Centre on 27th Feb. 2019.

15. Presented an invited project presentation on "Heavy Metal Detection in Environmental Samples of Delhi using Synchrotron based XRF" inIndus Synchrotrons Users' Meeting 2019 jointly organised by Devi Ahilya Vishwavidyalaya, Indore & Raja Ramanna Centre for Advanced Technology, Indore & UGC-DAE Consortium for Scientific Research, Indore in UGC DAE CSR, University Campus, Khandwa Road, Indore 452001 from March 27-29, 2019.

16.Presented an invited project presentation on "Investigation of quasi-adiabatic heavy ion-atom collisions using X-ray measurements" in the 65th Accelerator User Workshop organised by Inter-University Accelerator Centre (IUAC), New Delhi from 16th - 18th December 2018.

17. Presented an invited lecture on "Inner shell ionisation" in Department of Physics, Indira Gandhi University, Meerpur, Rewari on 4th December 2018.

Participation in various academic events: -

1. Participated in 125th year birth anniversary celebrations of Meghnad Saha organised by NASI in Allahabad, UP on 6th - 7th October 2018.

2. Participated in 88th Annual Session of NASI and Symposium on "Science, Technology and Ecosystem for Sustainable Rural Development" organised at ChitrakootGramodaya Vishwavidyalaya, Satna, MP from 6th - 8th December, 2018.

3. Participated in lecture titled "Chemistry and Physics Nobel Prizes – India's Contribution" by historian Dr Rajinder Singh, organised by NASI, Delhi Chapter in collaboration with INSA on 9th October, 2018 at INSA auditorium.

4. Participated in One Day Seminar on Life and Works of Prof. M. N. Saha and Prof. S. N. Bose Organized by JIIT, Noida and NASI Delhi Chapter September 15, 2018.

Resource person

1. Resource person at M.Sc. Physics Entrance training camp in University of Delhi, North Campus organised by ILLL in June, 2018.

2. Resource person as an expert in the interview held for project fellow appointment at NPL for a DST sponsored project.

3. **Organising committee member** for three days in NAAC sponsored National Workshop on "Skill Enhancement at Institutions of higher learning: training today for tomorrow" held from 7th to 12thJanuary, 2019.

4.**Resource Person** for one session in NAAC sponsored National Workshop on "Skill Enhancement at Institutions of higher learning: training today for tomorrow" on 11th January

5. As a Resource Person (Nodal officer) in National Graduate Physics Examination (NGPE) held every year in 3rd week of January all over India by Indian Association of Physics teachers (IAPT) at Kalindi College on 2020-09-17

6. As a Resource Person (Steward) Most people applying protective mask simultaneously online" Guinness World Records, Organized By CSIR NISTAD International on 2020-12-24

7. As a Resource Person (Steward) Most people Washing hands online simultaneously online" as teacher observer in Guinness World records",Organized By CSIR NISTAD 23 Dec 2020 International (within country)on 2020-12-23 60

8. As a Resource Person in 5 day workshop on "Development of items to measure each learning outcome in Science at Secondary stage Classes" organised by NCERT, New Delhi.

on 2021-03-19 180

9. As a Resource Person (Convener) in Challenges of teaching Physics Laboratory Courses in Online mode, organized by Department of Physics and Astrophysics, University of Delhi and The National

Academy of Sciences India (NASI) - Delhi Chapter" held during 23-25 January, 2021

10. As a Resource Person Organising committee member Exploring Physics with experts" Organized By Department of Physics, Kalindi College & The National Delhi Chapter. Held on 10.2.2021

11. As a Resource Person Convener An 11-week Course (July 27, 2020 to October 11, 2020) on Learning Physics with Conceptual & Problem-based Approach" Sciences India (NASI) - Delhi Chapter.

through online mode.

12. As a Resource Person Local Coordinator Vigyan Samagam organised by DST, DAE and NCSM Ministry of Culture, held at National Science Center on 2020-01-21

13. As a Resource Person Undergraduate Physics Revision Classes: Summer-2019 Department of Physics & Astrophysics, University of Delhi, for imparting training to undergraduate students in

Physics.(17-22 June 2019).

14.As a Resource Person One day training of Laboratory staff NAAC sponsored National Workshop on "Skill Enhancement at Institutions of higher learning: training today for tomorrow" held from 7th to 13th January, 2019, organized by IQAC, Kalindi College (on 11 Jan 2019).

15. As a Organising committee member Three days in NAAC sponsored National Workshop on "Skill Enhancement at Institutions of higher learning:training today for tomorrow" held from 7th to 13th January, 2019, organized by IQAC, Kalindi College

16. As a Resource Person Examiner Evaluation of the M.Sc. Dissertation (Semester-IV Environmental Studies) on the recommendation of the Courses Committee of the Department of Environmental

Studies

17. As a Resource Person Examiner B. Tech. And M. Tech End semester examinations held by Department of Nanotechnology, Amity University, Noida on 11th December 2018

18. As a Resource Person As an expert in the interview For appointment of project fellow at CSIR-NPL on 8th August 2018

19. As Resource Person DU Pre entrance summer school 2018 Organised by ILLL University of Delhi (for Elements of Modern Physics III on 14 June 2018)

20. As Resource Person DU Pre entrance summer school 2017 Organised by Institute of Life Long Learning (ILLL) University of Delhi (for Nuclear & Atomic Physics IV on 22 June 2017)

21. As a Resource Person DU Pre entrance summer school 2017 Organised by Institute of Life Long Learning (ILLL) University of Delhi (for Nuclear & Atomic Physics III on

21 June 2017)

Consultancy

1. External Examiner for evaluation of M.Sc. Thesis of Department of Environmental Studies, University of Delhi.

2.External Examiner for evaluation of B.Tech & M.Tech. Thesis of Amity Institute of Nanotechnology,

Amity University, Noida on 11th December 2018.

Faculty Development Programme

Imparted training to Lab staff of Department of Physics in practicals on 11th Jan 2018.

Curriculum Development/Modification

1. Nuclear and Particle Physics syllabus of B.Sc. Physics (H) modification in June 2018.

Undergraduate and Postgraduate Projects/Internships

1. One Postgraduate student from Department of Physics, Amity Institute of Applied Sciences, Amity University, Noida doing 6 months internship on topic "X-Ray based investigation of atomic inner-shell ionization by heavy ion impact".
2. Undergraduate Inter-departmental project titled "Evaluation of metal contamination in environmental samples using Atomic Spectroscopic Techniques across regions of Delhi" in 2018 funded by Kalindi College.
3. Undergraduate Inter-departmental project titled "Research methodology for Physics Research" in 2018-2019 funded by Kalindi College.
4. Undergraduate Inter-disciplinary project titled "Employing mathematical methods and techniques for solutions of problems in Physics" in 2018-2019 funded by Kalindi College.
5. Undergraduate Inter-disciplinary project titled "Student Wellness: Strategy For Students Success Through Medical Diagnostics" in 2018-2019 funded by Kalindi College.
6. Undergraduate Inter-disciplinary project titled "History of Education System in India and a comparison with the existent system" in 2018-2019 funded by Kalindi College.
7. Undergraduate Inter-disciplinary project titled "Vedic mathematics- an essential of science" in 2018-2019 funded by Kalindi College.
8. Undergraduate Inter-disciplinary project titled "Ayurveda: the alternative system of time tested medicine" in 2018-2019 funded by Kalindi College.

Externally funded projects

1. One major research project titled "Molecular orbital inferences of X-rays at small inter-atomic distances" funded by Inter-University Accelerator Centre (IUAC), New Delhi, an autonomous research centre of UGC, is continuing in its 3rd year in 2018-2019.

STUDENTS ACHIEVEMENTS (under projects) -2012-2013

INNOVATION PROJECT 2012-13

PROJECT TITLE-"CONVERSION OF MECHANICAL ENERGY TO ELECTRICAL ENERGY IN DELHI METRO".

PROJECT CODE: KC-101

PRINCIPAL INVESTIGATOR :Dr. PUNITA VERMA, Dr. SAVITA ROY.

FUNDING AGENCY: UNIVERSITY OF DELHI UNDER ITS INNOVATION PROJECTS SCHEME.

S.No.	Date of Event	Name of Event	Name of Students	Remarks
1	29th-30th November 2012.	WAMFER-2012 Indo German workshop on Advanced materials for future energy requirements jointly organized by the University of Delhi, India and the Max Planck Institute for Polymer Research, Mainz, Germany.	Abha Sharma, CharulGoel, Geeta, Himanshi Bansal, KanikaTyagi, KarishmaThakran MadhuriGanguly, Rashmi Jha, Ruchika Gupta Tulika Sharma	**Best Poster Award**
2	6th -18th Feb, 2013.	media coverage in the form of articles in prestigious newspapers like Indian express, Financial express, Navbharat times, Educationtimes.com of TOI	Abha Sharma, CharulGoel, Geeta, Himanshi Bansal, KanikaTyagi, KarishmaThakran MadhuriGanguly, Rashmi Jha, Ruchika Gupta Tulika Sharma	**Media attention**
3	22nd-24thFebruary 2013.	Antardhwani 2013 organised byUniversityof Delhi under innovation projects 2012-2013 scheme.	Abha Sharma, CharulGoel, Geeta, Himanshi Bansal, KanikaTyagi, KarishmaThakran MadhuriGanguly, Rashmi Jha, Ruchika Gupta Tulika Sharma	
4	25th-27th February 2013	Third National Conference on Innovations in Indian Science Engineering & Technology organized by Swadeshi Science movement of India, Delhi at CSIR, National Physical Laboratory.	Abha Sharma, CharulGoel, Geeta, Himanshi Bansal, KanikaTyagi, KarishmaThakran MadhuriGanguly, Rashmi Jha,	**Certificate of Appreciation Poster Presentation**

			Ruchika Gupta Tulika Sharma	
5	7th-9th March 2013	National Conference on "Redefining Science Teaching: Future of Education" organized by Acharya Narendra Dev College, University of Delhi.	Abha Sharma, CharulGoel, Geeta, Himanshi Bansal, KanikaTyagi, KarishmaThakran MadhuriGanguly, Rashmi Jha, Ruchika Gupta Tulika Sharma	**Certificate of Appreciation, Oral Presentation.**
6	31st March 2013	RashtraSevikaSamiti, Delhi	Abha Sharma, CharulGoel, Geeta, Himanshi Bansal, KanikaTyagi, KarishmaThakran MadhuriGanguly, Rashmi Jha, Ruchika Gupta Tulika Sharma	**Honoured with ShauryaSamman** and applauded by Ms Sushma Swaraj.

STUDENTS ACHIEVEMENTS (under projects)-2013-2015

INNOVATION PROJECT 2013-15

PROJECT TITLE :"TO EVALUATE THE FEASIBILITY OF INSTALLING WIND TURBINES IN METRO STATIONS."

PROJECT CODE: KC-201

PRINCIPAL INVESTIGATOR: Dr. PUNITA VERMA, Dr. SAVITA ROY(till November 2014 only).

S.No.	Date of Event	Name of Event	Name of Students	Remarks
1	16th-17th October 2014	National Conference on "Striving & Thriving Towards Diffusion of Student-driven Research in Science and Technology for Inspired Learning" organized by Embedded Systems & Robotics Centre (ESRC) and Department of Electronics Maharaja Agrasen College, University of Delhi.	MadhuriGanguly, R. Gupta.	**Oral Presentation.**

2	20th-22nd Feb. 2015.	Antardhwani 2015 organised byUniversityof Delhi under innovation projects 2013-2015 scheme.	KavitaKumari Malvika Meghna Sharma PreetiKumari RituVyaghrambare SakshiPatwal Sanya Sharma Vernika Mehta Anshika YogyataNarula	**Industry award As "Best innovative Idea"** amongst 240 projects approved by the University under innovation projects 2013-2015 scheme
3	6th April, 2015	Presented a paper at one day national conference on "Smart cities: challenges and vision ahead."organized by Shaheed Bhagat Singh College, University of Delhi.	KavitaKumari RituVyaghrambare SakshiPatwal Vernika Mehta Tulika Sharma	**Poster Presentation**
4	5th-6th April 2015.	Exhibition of the project at Antardhwani 2015, innovation plaza lead to the media coverage in the form of articles in prestigious newspapers like **PTI, Times of India,IBNLIVE,IndiaTimes,News Nation, Millenium Post, Navbharat times, DainikJagran, Rashtriya Sahara, Amar Ujala and NaiDuniya, dnaindia.**	KavitaKumari Malvika Meghna Sharma PreetiKumari RituVyaghrambare SakshiPatwal Sanya Sharma Vernika Mehta Anshika YogyataNarula	**Media attention**
5	May, 2015	Coverage of KC 201 project in the magazines 1."Now Electricity: from trains" in **Earth Care Optimized and** 2. "Wheeling wind power": in **ENERGY NEXT** volume 5, Issue 7, May 2015, pg 38-40 (Online at www.energynext.in).	KavitaKumari Malvika Meghna Sharma PreetiKumari RituVyaghrambare SakshiPatwal Sanya Sharma Vernika Mehta Anshika YogyataNarula	**Magazine coverage**
	6/3/2015 and 7/3/2015	Metro project progress was covered by DD news and by Total TV on their telecast on 6/3/2015 and 7/3/2015 respectively.	KavitaKumari Malvika Meghna Sharma PreetiKumari RituVyaghrambare SakshiPatwal Sanya Sharma Vernika Mehta	**Coverage on TV**

			Anshika YogyataNarula	

STUDENTS ACHIEVEMENTS (under projects)-2015-2016

INNOVATION PROJECT-KC304

PROJECT TITLE-"CONVERSION OF WIND ENERGY TO ELECTRICAL ENERGY AT DELHI METRO STATIONS USING LIGHT ROTOR TURBINES".

PROJECT CODE: KC-304

PRINCIPAL INVESTIGATOR :Dr. PUNITA VERMA.Dr. NEETU AGRAWAL, Dr. REENA JAIN.

FUNDING AGENCY: UNIVERSITY OF DELHI UNDER ITS INNOVATION PROJECTS SCHEME.

S.No.	DATE OF THE EVENT	NAME OF THE EVENT	NAME OF THE PARTICIPANTS	REMARKS
1.	16-17 Oct.,2015.	National conference on ***Student research for inspired learning*** organized by Embedded Systems and Robotics Centre and Department of Electronics, Maharaja Agrasen College, D.U.	IpshitaBhasi Sakshi Rani MahimaSachdeva Madhu Pandey Shikha Chaudhary RajaniReghu Upma Gandhi Kritika Bansal Priyanka Jha AnchalFanda	Wide appreciation by the public
2.	21,22,23,24 Jan.,2016.	***Innovation Festival,*** National Science Centre (NSC), New Delhi organized by National Science Centre, National Council of Science Museums-Ministry of Culture, Govt. of India.	Shikha Chaudhary MahimaSachdeva Priyanka Jha	Wide appreciation by the public

3.	22,23 Jan 2016.	National conference on ***Electrical energy:Safety and Conservation*** organized by Swami Shraddhanand college, D.U.	IpshitaBhasi RajaniReghu Sakshi Rani	
4.	4^{th},5^{th} Feb., 2016.	National conference on ***Advancement in Electronics and Computer Applications*** organized by Department of Electronics and Computer Science, Shaheed Rajguru College of Applied Sciences, D.U.	IpshitaBhasi Sakshi Rani MahimaSachdeva Madhu Pandey Shikha Chaudhary RajaniReghu Upma Gandhi Kritika Bansal Priyanka Jha AnchalFanda	**Won Excellence award.**
5.	7^{th},8^{th}March,2016.	Technivalβ Annual Tech fest,2016 organised by Department of Computer Science, Kirori Mal college, DU.	Shikha Chaudhary Madhu Pandey IpshitaBhasi Sakshi Rani.	**Won Ist prize.**