ZAKIR HUSAIN DELHI COLLEGE
(University of Delhi)

Faculty Details

(Please Fill the form and Email it to website@zh.du.ac.in)

Dr.	**Arun**	**Goyal**	**Photograph**
Designation	Assistant Professor		
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Educational Qualification

Degree	**Institution**	**Year**
Ph.D	University of Delhi	2018
M.Sc Physics	Hansraj College	2012
B.Sc Physics (H)	Deen Dayal Upadhyaya College	2010
NET-JRF	CSIR-UGC	2012
GATE	IIT DELHI	2012

Career Profile

Feb. 2024-Till Date	Assistant Professor	Department of Physics	Zakir Husain Delhi College (University of Delhi)
Aug. 2017 – Aug. 2023	Assistant Professor	Department of Physics	Shyamlal College (University of Delhi)

Administrative Assignments

Member: Compilation of Annual Report

Member: Prospectus Committee

Member: Academic Advisory Committee

Areas of Interest / Specialization

Atomic Physics, Atomic Structure Calculations, Atomic Processes, CR modelling

Subjects Taught

B.Sc. (Prog.) Physical Sciences

Mechanics
Electricity & Magnetism
Wave & Optics
Thermal and Statistical Physics
Modern Physics
Quantum Mechanics

Research Guidance

Publications Profile

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISSN number
Analysis of configuration interaction and convergence with energy levels and radiative data in W XXXIX	Rinku Sharma, **Arun Goyal** and Man Mohan	Physics	journal of electron spectroscopy and related phenomena	2019	0368-2048
Study of Relativistic excitation energies and transition data of X–ray and EUV transitions in Be-like ions	Narendra Singh and **Arun Goyal**	Physics	journal of electron spectroscopy and related phenomena	2019	0368-2048
Analysis of discrepancy in previously published excitation energies of Ne-like ions from two independent codes and atomic data of Rb XXVIII and Ba XLVII	**Arun Goyal**, Rinku Sharma and Sunny Aggarwal	Physics	journal of electron spectroscopy and related phenomena	2020	0368-2048
Energy levels, transition data and collisional excitation cross-section of Sn3+ and Sn4+ ions	Narendra Singh and **Arun Goyal**	Physics	journal of electron spectroscopy and related phenomena	2020	0368-2048
Determination of atomic properties in the oxygen isoelectronic sequence	Narendra Singh, **Arun Goyal** and Sunny Aggarwal	Physics	Results in Physics	2021	2211-3797
Excitation energies, transition data of SXR, HXR, EUV and far-UV spectral lines with partition function, thermodynamic parameters and level population for W LXVII and W XLIX	Rinku Sharma and **Arun Goyal**	Physics	journal of electron spectroscopy and related phenomena	2021	0368-2048

Partition function and thermodynamic quantities with atomic data of Ag XLIV	Ravinder Kumar, Narendra Singh and **Arun Goyal**	Physics	Canadian journal of physics	2021	0008-4204
Contribution of doubly and triply excited states in excitation energies with transition data and collisional excitation cross-section of Sn13+ and Sn14+ ions	Narendra Singh and **Arun Goyal**	Physics	Radiation Physics and Chemistry	2021	0969-806X
Effect of plasma environment on spectral and structural properties of H-like C, N and O ions	P.C. Bhowmik, Falta Yadav, Richa, Narendra Singh, **Arun Goyal** and Man Mohan	Physics	journal of electron spectroscopy and related phenomena	2021	0368-2048
Study of excitation energies of doubly excited states and identification of EUV, SXR and HXR spectral lines in M1 transitions of W LXXIII and Au LXXVIII	Narendra Singh, **Arun Goyal** and Sunny Aggarwal	Physics	journal of electron spectroscopy and related phenomena	2022	0368-2048
Theoretical analysis of atomic parameters of Sm-like and Nd-like W ions in soft x-ray region	Narendra Singh, Sunny Aggarwal and **Arun Goyal**	Physics	Physica Scripta	2022	1402-4896
Theoretical study of atomic parameters, electron impact excitation, and photoionization of 4d and 4d2 states in Sn ions	Narendra Singh and **Arun Goyal**	Physics	European Physical Journal Plus	2022	2190-5444
Theoretical analysis of excitation energies and transition parameter of C-like ions	I. Khatri and **Arun Goyal**	Physics	European Physical Journal D	2022	1434-6060
Strongly coupled plasma effect on excitation energies of O-like ions and photoionization of F-like ions	Rinku Sharma and **Arun Goyal**	Physics	Indian Journal of Physics	2022	0973-1458
Study of contribution of doubly excited 3d10 configurations in excitation energies and SXR transition data of Fe-like ions	Rinku Sharma and **Arun Goyal**	Physics	Indian Journal of Physics	2022	0973-1458
Theoretical analysis of relativistic energy corrections, partition function and thermodynamic properties of spherically confined hydrogen atom	R. Joshi, **Arun Goyal**, P. Kumar and M. Mohan	Physics	European Physical Journal D	2022	1434-6060
Theoretical study of excitation energies and radiative data with identification of SXR and EUV spectral lines for Li-like ions	P. Kumar, **Arun Goyal** and M. Mohan	Physics	European Physical Journal Plus	2022	2190-5444
Analysis of line intensity ratio for optical transitions of 3d6 levels and plasma screening effect on atomic structure of Fe III ion	F. Yadav, **Arun Goyal** and Narendra Singh	Physics	Radiation Physics and Chemistry	2023	0969-806X
Analysis of line intensity of cloud-to-ground lightning and flux ratio of active galactic nuclei forbidden nebular lines in NII	R. Kumar, **Arun Goyal** and Narendra Singh	Physics	Indian Journal of Physics	2024	0973-1458
Photoionization of ground and excited states of Cr VIII with Rydberg series analysis of resonances involved	F. Yadav, **Arun Goyal**, Narendra Singh and Man Mohan	Physics	Indian Journal of Physics	2024	0973-1458

Electron impact single ionization cross-section and Maxwellian rate-coefficients of L-shell of tungsten ions W64+-W71+	Ravinder Kumar, Narendra Singh and **Arun Goyal**	Physics	Radiation Physics and Chemistry	2024	0969-806X
Spectroscopic study of Fe IV and photoionization of Fe III ions under dense plasma	F. Yadav, **Arun Goyal**, and Narendra Singh	Physics	Physics Letters A	2024	0375-9601

Conference Organization/ Presentations (in the last five years)

1. Participated in ICPEAC-2019, 31st International conference on photonic, electronic and atomic collisions, France, 23rd to 30th July 2019.

2. Member of Organizing Committee, International conference on atomic, molecular, optical and nano physics with applications, Delhi Technological University, Delhi, India, 18th to 20th December 2019.

3. Member of Organizing Committee, Interactive workshop for Intermediate School Students, Shyamlal College, 4th to 6th August, 2022.

Research Projects (Major Grants/Research Collaboration)

Awards and Distinctions

Junior Research Fellowship (CSIR-UGC), Delhi
Senior Research Fellowship (CSIR-UGC), Delhi

Association With Professional Bodies

Member of American Physical Society

Other Activities