

FACULTY PROFILE



Name: Dr. Sarvendra Kumar

Designation: Assistant Professor

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➤ **Work Experience:** 15+ Years

➤ **Professional Qualification:**

Degree	Institute/University	Specialization	Year of Passing
Ph.D	Amity Institute Applied Sciences, Amity University Noida	Spectroscopic Computational Physics	2019
B.Ed	C.C.S. University, Meerut, U.P.	Science	2013
M.Sc.	C.C.S. University, Meerut, U.P.	Physics	2007
B.Sc.	C.C.S. University, Meerut, U.P.	PCM	2004

➤ **Research Interest:**

- Spectroscopy Physics
- DFT, HF
- Computational Physics
- Nanotechnology and Thin Film

➤ **Publications (Journals & Conferences):**

1. Surbhi, Deeya Shalya, **Sarvendra Kumar***, "Molecular Geometry, Homo-Lumo Analysis and Mulliken Charge Distribution of 2,6-Dichloro-4-Fluoro Phenol Using DFT and HF Method." 'East European Journal of Physics' 2023, <https://doi.org/10.26565/2312-4334-2023-1-27>, PP205-209, ISSN 2312-4334. **Scopus indexed.**

2. Meenu Bharti, Dr. Pankaj Kumar, **Sarvendra Kumar*** "Review of Mobile Learning Technology on Engineering Students." 'Journal of Emerging Technologies and Innovative Research' Peer reviewed and refereed journal. 2022, Vol. 09, Issue 07, ISSN-2349-5162, pp f615—f619.
3. Manmohan Singh, Dr. Pankaj Kumar, **Sarvendra Kumar*** "Review of Power Converters with Smart Control Strategies for Piezo Electric Energy Harvesting System." 'Journal of Emerging Technologies and Innovative Research' Peer reviewed and refereed journal. 2022, Vol. 09, Issue 07, ISSN-2349-5162, pp g108—g112.
4. Rahul, Harshita Kamboj, **Sarvendra Kumar*** "Stress Emotion Recognition from EEG for Ehealthcare Applications: A Review." 'Journal of Emerging Technologies and Innovative Research' Peer reviewed and refereed journal. 2022, Vol. 09, Issue 06, ISSN-2349-5162, pp j589—j593.
5. Rahul, Harshita Kamboj, **Sarvendra Kumar*** "Artificial Intelligence based Machine and Deep Learning Technique for Detecting Depression Using EEG." 'High Technology Letters' Peer reviewed and refereed journal. 2022, Vol. 08, Issue 07, ISSN-1006-6748, pp 8-13.
6. Anu malik, Harshita Kamboj, **Sarvendra Kumar*** "Survey of Android Malware Prediction Using Artificial Intelligence Techniques." 'Journal of Emerging Technologies and Innovative Research' Peer reviewed and refereed journal. 2022, Vol. 09, Issue 06, ISSN-2349-5162, pp b722-b725.
7. Anu malik, Harshita Kamboj, **Sarvendra Kumar*** "Android Malware Prediction Using Machine Learning Technique with Performance Analysis." 'Journal of Emerging Technologies and Innovative Research' Peer reviewed and refereed journal. 2022, Vol. 09, Issue 06, ISSN-2349-5162, pp b726-b730.
8. **Sarvendra Kumar***, Surbhi, M. K. Yadav" Optimized Molecular Geometries, Internal Coordinates, Vibrational Analysis, Thermodynamic properties, First Hyper Polarizability and Homo-Lumo Analysis of Duroquinone using Density Functional Theory and Hartree-Fock Method." 'Russian Journal of Physical Chemistry B' 2021, <https://doi.org/10.1134/S1990793121090116> Vol. 15, Suppl. 1, pp. S22–S31. © Pleiades Publishing, Ltd., **SCI & Scopus indexed.**
9. Surbhi, **Sarvendra Kumar***, G.N.Panday, "Experimental and computational (ab initio and DFT) analysis of vibrational spectra of 2,6-dimethyl-4-nitrophenol" "AIP Conference Proceedings 2020, 130069 (2020); <https://doi.org/10.1063/5.0002433> , Published Online: 05 May 2020. **Scopus indexed.**
10. **Sarvendra Kumar***, Surbhi, M. K. Yadav"Vibrational Spectroscopic Investigation, first hyper polarizability and Homo-Lumo Analysis of tetrahydroxy-1,4 quinone hydrate using DFT and HF method." 'Russian Journal of Physical Chemistry B' DOI:[10.1134/S1990793118030132](https://doi.org/10.1134/S1990793118030132) Vol. 12 No.3 (2018) ISSN NO: 1990-7923 (online), 1990-7931(print). **SCI & Scopus indexed.**
11. **Sarvendra Kumar***, Surbhi, M. K. Yadav "Ultraviolet absorption spectra, solvent effect and Non- linear Optical properties of tetrahydroxy 1-4 quinone hydrate by Hartree fock and Density functional theory" 'Asian Journal of

Chemistry' DOI:[10.14233/ajchem.2017.20741](https://doi.org/10.14233/ajchem.2017.20741) Vol. 29, No.10 (2017), 2241-2248. ISSN NO: 0975-427X (online), 0970-7077(print). **Scopus indexed.**

12. Jayant Teotia*, **Sarvendra Kumar**, Surbhi, Rajesh Kumar, M. K. Yadav "Ultraviolet absorption spectra, solvent effect and Non-linear Optical properties of 2-amino-4, 6- dimethylpyridine by hartee-fock and density functional theory" in "Asian Journal of Chemistry". DOI:[10.14233/ajchem.2016.19928](https://doi.org/10.14233/ajchem.2016.19928) Vol. 28 No. 10 (2016) 2204-2210, ISSN NO: 0975-427X (online), 0970-7077(print). **Scopus indexed.**
13. **Sarvendra Kumar***, Surbhi, M. K. Yadav, Jayant Teotia, "Solvent effect on electronic transitions, Homo Lumo analysis of 2,6 dichloro 3 nitro pyridine under hatree fock and density functional theory" RTMDS, Springer proceeding in physics, October 2016, vol. 178, DOI:[10.1007/978-3-319-29096-6_66](https://doi.org/10.1007/978-3-319-29096-6_66), ISBN 978-3-319-29096-6 (online), ISBN 978-3-319-29095-9 (print). **Scopus indexed.**
14. **Sarvendra Kumar***, Surbhi, M. K. Yadav, "UV-Vis studies and Quantum analysis of 2,3,5,6-Tetramethyl-1,4-benzoquinone using HF and DFT method" "Proceeding of ICCCS 2016, DOI:[10.1201/9781315364094-128](https://doi.org/10.1201/9781315364094-128) CRC Press London (Taylor & Francis) ISBN 9781315319445. Page 713-720. **Scopus indexed.**
15. Seema *, B.S.Yadav, **Sarvendra Kumar**, Munish "Ultraviolet absorption spectra, solvent effect and Non- linear Optical properties of 1,2,4,5-tetrachloro-3-nitrobenzene by hartee-fock density functional theory" 'International journal of research and analytical reviews' Vol. 6, issue-2 (2019), 2241-2248. ISSN NO: 2348-1269 (online), 2349-5138(print).
16. **Sarvendra Kumar***, Surbhi, M. K. Yadav, 'Experimental and Theoretical (ab initio/HF) Analysis of Vibrational Spectra, Thermodynamic Functions and Non-Linear Optical Properties of 2,6-Dimethyl-4-nitrophenol' international conference " Technological and Managerial Strategies for Next Generation Transformation" at Mangalmay Group of Institutions on 18 march 2017, proceeding of Bloomsbury Publishing India PVT. LTD. New Dehli, London Oxford, ISBN 978-93-86432-66-7 10987654321. page 269-281.
17. **Sarvendra Kumar***, Richa Sharma, Surbhi, M.K Bansal 'A study of solvent effect on electronic transition of 4,6-dihydroxy-5-methylpyrimidine using density functional theory" in Intl J Engg Sci Adv Research 2016 March; 2(1):73-76 ISSN NO: 2395-0730.
18. Rajesh Kumar, **Sarvendra Kumar***, Jayant Teotia, M. K. Yadav, Experimental and theoretical (ab initio and DFT) analysis of Uv-vis spectra, thermodynamic functions and non linear optical properties of 2-chloro-3,4 dimethoxy benzaldehyde; published in "Journal of advances in physics" vol.8No.2, 2122-2134 ,April 2015. ISSN NO: 2347-3487
19. Surbhi*, D.P. Singh, **Sarvindra Kumar**, Thermodynamic functions molecular polarizability of 2,6 dichloro-4- fluoro phenol; published in "Journal of advances in physics" vol.7, No.2, 1448-1456 January 2015. ISSN NO: 2347-3487.

➤ **Patent published and granted:**

1. **Patent Published:** Artificial intelligence based Plastic waste management system. .
2. **Patent Published:** 2D materials and their electronic and physical properties in transistors.
3. **Patent Published:** Smart street lamp System Control using 5G internet of Things Communication.
4. **Patent Published:** Intelligent device for fruits rot monitoring.

➤ **Books and Books Chapters:**

1. **Book:** Dr. Sarvendra Kumar, **Quantum Mechanics and Relativity**, Book Enclave, Jaipur, 2023. ISBN 9789392262357
2. **Book:** Dr. Sarvendra Kumar, **Classical Mechanics**, Pinakin Publishing, New Dehli, 2023. ISBN 9789395691857
3. **Book:** Dr. Sarvendra Kumar, **Gate 2022 Physics Chapter wise**, G.K Publication (P) Ltd.2022. ISBN: 978-93-91061-26-5
4. **Book:** Dr. Sarvendra Kumar & Satyendra Kumar Gautam, **Electromagnetism**, RR Publication, New Dehli. 2020. ISBN:978-93-5269-652-9
5. **Book:** Dr. Sarvendra Kumar, **Signals Spectra and Signal Processing**, RR Publication, New Dehli. 2020. ISBN: 978-93-5269-653-6
6. **Book:** Dr. Sarvendra Kumar, **Experimental Physics**, RR Publication, New Dehli. 2020 ISBN: 978-93-5269-648-2
7. **Book:** Dr. Sarvendra Kumar, **Applied Physics-I**, Nano Edge Publication, Meerut 2015. ISBN:978-81-930155-9-9

➤ **Awards and Achievements**

1. **“Excellence in Education”** award by CEE (confederation of education excellence) on the occasion of International education conclave on National education Policy 2022, on dated 25 November 2022.

➤ **Workshops/Seminars/FDPs**

1. One Week - “FDP on **“Blended Learning and Flipped Classrooms”**”, 16th- 20th Oct 2023, Online Mode, NITTTR Chandigarh.
2. 10-Days Online FDP on **“Creating an Inclusive Learning Environment”**, held from 24th July 2023 to 3rd Aug 2023, organized by Department of Physics, SRM Institute of Science and Technology.
3. Attended one week FDP organized by Department of Physics (08th May to 12th May 2023) at Madanapalle Institute of Technology & Science, Annamayya, Andhra Pradesh.
4. Attended 6 days **FDP organized by IEEE** (20th December to 25th December 2022) at SRM Institute of Science & Technology, Dehli NCR Campus, Ghaziabad U.P.
5. International seminar on **“Recent Trends in Materials and Devices (ICRTMD-2019)”** on 18th -19th December 2019 at Amity University, Noida.
6. International conference on **“Condensed Matter & Applied Physics (ICC-2019)”** on 14th -15th October 2019 at Department of Physics, Govt. Engineering College, Bikaner.

7. International conference of international academy of physical sciences **CONIAPS-XXIV on “Innovations in Physical Sciences”** on 09th -11th August 2019 at Faculty of Science, CCS University, Meerut.
8. National conference on **“Recent advancement in science and technology (RAST 2018)”** held on 6-7th March 2018 at Shobhit University, Gangoh.
9. National conference on **“Recent trends in basic & applied science for sustainable environment (RT-BASE 2018)”** held at Subharti University Meerut on 1-2nd Feb 2018.
10. Participated in the seminar on **“Food adulteration & FSSAI Parameters”** held at Subharti University Meerut on 14th May 2018.
11. International conference on **‘Advanced Research and Innovation in Engineering (ICARIE-2017)’** held on 26th & 27th August 2017 at Meerut Institute of Technology, Meerut, India.
12. International seminar on **“Technological and Managerial Strategies for Next Generation Transformation”** on 18th march 2017 at Mangalmai Group of Institutions, Noida.
13. International conference on **“VLSI Communication and networks (VCAN 2017)”** held on 10th -11th march 2017 at Institute of Engineering & Technology Alwar (Raj.).
14. International workshop on **‘Educational Technology & Green ICT’** held on 01st march 2017 at IIMT Engineering College, IIMT University, Meerut.
15. **“International conference on communication & computing system ICCCS”** held on 9th -11th September 2016 at Dronacharya college of Engineering, Gurgaon.
16. **“International conference on Value Education for Ethics and Global Peace”** held on 29th -30th April 2016 at Deewan institute of management studies, Meerut.
17. National conference on **“Current advances in science & technology (CAST 2016)”** held on 19th March 2016 at RAMA University, Kanpur.
18. National conference on **“Challenges & opportunities for technological innovation in india”** on 19th-20th February 2016 at AIMT Lucknow U.P.
19. International seminar on **“RECENT Trends in Materials and Devices ICRTMD-2015**, held on 15th -17th December 2015, at Amity University Noida, India.
20. Participated in the 02 days international conference on **Emerging trends in hospitality & tourism sector** held at Subharti University Meerut on 21-22nd November 2015.
21. Participated in the 02 days workshop on **Networking & CCNA** held at IIMT Meerut on 10-11th September 2015.
22. **“Effect of pyrimidine and their derivatives on environment”** in international seminar on **“world crisis and the Gandhian vision”** held on 20th and 21st January 2015, at ISMAIL National (P.G) College for Women, Meerut, India.

23. National seminar “**Future perspectives of science & technology in society and governance (FPSTSG-2014)**” held on 29th-30th November 2014 at SSV College Hapur.
24. National seminar on “**Recent trends in advancement of mathematics and physical sciences RTAMPS 2014**” held on 18th September 2014 at DN(PG) College Meerut.
25. Participated in the National Seminar On “**Recent trends and development in nano materials**” 12th & 13th april 2013 at IIMT Engineering College Meerut.
26. Participated in the National Seminar On “**Higher Education in India: Challenges & Opportunities**” 1st april 2013 at Neelkant Group of Institutions, Meerut.
27. National seminar on “**Recent trends in advancement of mathematics and physical sciences RTAMPS 2010**” held on 17-18th march 2012 at DN(PG) College Meerut.
28. National Workshop on “**Advancement of Nano Materials and its Applications, UGC Sponsored**” held on 09-11th February 2012 at DAV College Kanpur (U.P).
29. National conference on “**Advancement of Nano Materials and its Applications, CSIR Sponsored**” held on 15-16th February 2011 at DAV College Kanpur (U.P).
30. National seminar on “**Recent trends in advancement of mathematics and physical sciences RTAMPS 2010**” held on 30-31th January 2010 at DN(PG) College Meerut.
31. Participated in the National Seminar On “**Environment & Human Concern**” in Feb17th 2008 at D.N(P.G) College Meerut.

➤ **Work experience: 15+ Years**

❖ **Teaching at Under Graduate Level: (15+ Years)**

- Assistant Professor, Physics, SRM Institute of Science and Technology, Delhi- NCR Campus, Modinagar, Ghaziabad. **(August 2023 to till date)**
- Assistant Professor, Physics, , Neelkanth Group of Institutions, Meerut from **(January 2023 to August 2023)**
- Assistant Professor, Physics, SRM Institute of Science and Technology, Delhi- NCR Campus, Modinagar, Ghaziabad. **(August 2023 to December 2022)**
- Assistant Professor, Physics, , Neelkanth Group of Institutions, Meerut from **(August 2018 to September 2022)**
- Assistant Professor, Physics, K.V. Faculty of Science, Subharti University Meerut **(April 2016 to August 2018)**
- Assistant Professor, Physics, IIMT Institute of Engineering & Technology, Meerut. **(September 2009 to November 2015)**
- Lecture, Bansal Institute of Engg. & Tech, Meerut **(August 2008 to August 2009)**
- Tutor, D N Degree College Meerut. (September 2007 to Jan 2008)

❖ **Teaching at Post Graduate Level: (2 Years)**

- Assistant Professor, Physics, K.V. Faculty of Science, Subharti University Meerut **(April 2016 to August 2018)**

➤ **Professional Memberships:**

1. Life Member of the **Indian Society for Technical Education** (ISTE).