

FACULTY PROFILE PROFORMA

Title (Ms/Mr/Dr/Prof)	Prof.	First Name	Seema	Last Name	Gupta	Photograph
Designation	Professor					
Department	Physics					
Address (Official)	Kalindi College, East Patel Nagar, Delhi					
Phone No.	-					
Email	seemagupta@kalindi.du.ac.in					
Education						
Subject	Institution		Year		Details	
Ph.D. Physics	Delhi University		2000			
MSc. Physics	Delhi University		1991			
BSc(H)Physics	Kirori Mal College, Delhi University		1989			
Career Profile						
Organisation/Institution	Designation		Duration		Role	
Kalindi College East Patel Nagar University of Delhi	Professor		32 Years+		Academic	
Research Interests/Specialization						
Specialization: Electronics Research Interest: 1. EPR and Electrical properties of binary V_2O_5-TeO_2 and ternary V_2O_5-$ZnCl_2$-TeO_2 glasses. Optical and thermal properties of different materials 2. Carbon nano tube as gas sensor						
Administrative Assignments / Contribution to corporate life						

- Dy. Superintendent, Annual and semester examinations, 2014-2015
- Co-convenor, Admission committee, 2012
- Member of Science faculty, Delhi University
- Member of Sports committee, Kalindi college till 2020
- Co-convenor of Anti-tobacco committee till 2020
- Convenor, Mehendi Club 2012-2020
- Convenor, Sponsorship and Brochure committee, Lehen for 5 years
- Convenor, Sponsorship and Brochure committee, Vigyan Vividha
- Convenor, Prospectus committee for 3 consecutive years
- Secrecy Officer, Annual Examination
- Convenor, Refreshment committee, Alumni meet, and many other functions
- Co-convenor of Lehen
- Co-convenor of Fresher's welcome for 5 years
- Co-convenor of College farewell party for 6 years
- Convenor of collage making competition, Lehen, for 2 years
- Member of prize distribution committee, Annual day for 3 years
- Member of admission committee as science representative for 2 years
- Deputy superintendent, Examination committee, 2014-15
- Member of E-waste committee till 2020
- Member of Execution Coordination Team, IQAC. 2018
- Convener of entrepreneurship cell, 2019, 2020
- Member of SSR committee, 2018
- Convener of informal events, sports day, 2018,19
- Co convener, souveneir distribution committee, alumni day 2019
- Member of prize distribution committee for 5 years
- Member of repository committee, 2017-20
- Member, innovation in Governance of institution, Atal ranking of institutionon innovation achievements 2018-20
- Member of admission committee every year
- Convener of CBCS guideline implementation committee, 2018-20
- Member of generic subject distribution committee, 2018-20
- Convener of Entrepreneurship cell, 2019-20
- Convener of CBCS guideline implementation committee of college, 2019-20
- Convener of Alumni committee, 2019 to till date
- Convener Physics society 'Physithon' 2020-till date
- Science convener for Time table, 2020-21
- Member of screening committee for permanent appointments in Physics 2020
- Life membership of IAPT, 2019 onwards
- Teacher-in-charge, Deptt of Physics, Kalindi College, 2020-22

- Member of academic committee, 2020-22
- Member of students grievance committee 2021-22
- Member of feedback committee 2021-22
- Member, verification committee for the promotion of stage 2 to stage 3 of college teachers 2022
- Member of Physical verification committee for Library and Sports 2021-24
- Convener for Miss Freshers contest, 2022
- Member as TIC for Technical Committee of Purchases For Physics Department 2022
- Convenor of alumni committee 2019-23
- Convenor of Rangoli club 2023-24
- Co-Convenor, ISBD cell 2023
- Member of Governing body of college 2023
- Convenor for screening of applications for post of assistant professors, Department of Physics 2022-23
- Election officer for staff elections, 2023
- Convenor budger allocation committee, 2024
- Convenor of activity “science in every day life” in Physics inter-college festival DIMENZIE, 2017
- Member of organizing committee of National seminar on “**A paradigm shift towards empowerment of women**, organized by science departments of Kalindi college, 2017.
- Member of organizing committee of Inter college students seminar held by Physcom society, 2018
- Judge for poster presentation competition in Astroid, intra college festival of Physics Deptt, Kalindi college on 1st October 2019.
- Co convener for Miss Kalindi contest, 2019
- Co Convener for Mehendi Competition in Leheren, 2020
- Convener for webinar on “leadership and entreneurship in current economic scenario organized by alumni committee and alumni association on 31st Oct, 2020
- Convener for skill enhancement workshop “ICT learning in the period of Online knowledge exchange” organized by Physics Department and IQAC of Kalindi college on 9th and 10th Dec, 2021.
- Convener of webinar on “Challenges of online mode of education” organized by Physithon-The Physics Society of Kalindi College for Ist year students on 2nd December,2020
- Convener of “CREATE-A-THON” Event organized by Entrepreneurship cell of Kalindi College on 25 th November, 2020
- Convener for a series of Webinars organized by Entrepreneurship cell of Kalindi College , 2020
- Convener for inter college students seminar organized by Physithon, the Physics society of Kalindi college on 30th January, 2021
- Convenor for alumni talk organized by Physithon, the Physics society of Kalindi college on 24thApril, 2021.
- Convener for an on line seminar “career vartalaap” organized by Physithon-The Physics Society of Kalindi College on 22th October, 2021.
- Convenor of International webinar on “Gender, culture and the everyday experience” organized by Physithon-The Physics Society of Kalindi College on 27th October, 2021.

- Convenor of “Creative writing competition” celebrating Azadi Ka Amrit Mahotsav, organized by Physithon-The Physics Society of Kalindi College on 17th September, 2021.
- Convenor of National webinar on “Rewiring your Genetics: From Genetics to Epigenetics” organized by Physithon-The Physics Society of Kalindi College on 15th January, 2022.
- Convenor of Intercollege students seminar “Cosmatrix22” organized by Physithon-The Physics Society of Kalindi College on 31st January, 2022.
- Convenor of the event “vigyanotsav” organized by Physithon-The Physics Society of Kalindi College on 28th February, 2022.
- Alumni committee convener for online event “Life of a graduate-Insight by alma matter” organized by Botanical society in association with alumni committee of Kalindi college on 3rd February 2022
- Alumni committee convener for an event “Kalindians footprints-A path worth knowing” organized by Biochemical society in association with alumni committee of Kalindi college on 10th March 2022.
- Alumni committee convener for an alumni talk organized by the chemical society in association with alumni committee of Kalindi college on 20th April 2022
- Alumni committee convener for online event “Career Charcha” organized by Economics Department in association with alumni committee of Kalindi college on 29th August, 2021
- Alumni committee convener for online event “Impetus” organized by Mathematics society in association with alumni committee of Kalindi college on 29th January 2022.
- Alumni committee convener for online event “2FEET 20 BOATS” organized English Literary society in association with alumni committee of Kalindi college on 22nd January 2022.
- Alumni committee convener for online event “Rendezvous” organized by Computer science society in association with alumni committee of Kalindi college on 15th January 2022
- Convenor for a one day workshop “Back to college post pandemic” organized by alumni association in collaboration with alumni committee of Kalindi College on 22nd April, 2022.
- Convenor for alumni meet on 5th Feb. 2023
- Convenor-Budget allocation committee of college, 2024-26
- Member, Plant incubation cell, 2024-26
- Convenor, Central admission committee for arts courses of college, 2025
- Deputy Superintendent, Central examination committee of college for theory exams, 2024-25
- Co- Convenor of National seminar on “Contribution of contemporary Science advancement of society” under National academy of sciences India Delhi chapter: Science and society program (Project DC2) on 21.10.24 in Kalindi College
- Co- Convenor of webinar series part I entitled “ Role of women scientists towards science and society under National academy of sciences India Delhi chapter: Science and society program (Project DC2) on 25.1.25
- Convenor of webinar series part II entitled “ Role of women scientists towards science and society under National academy of sciences India Delhi chapter: Science and society program (Project DC2) on 7.3.25
- Co- Convenor for rural workshop “ Women and children health and hygiene awareness” under National academy of sciences India Delhi chapter: Science and society program (Project DC2) on 10.2.25 in Chandrawal village, Delhi

- Convenor, Student grievance committee for UG admissions, 2025-26
- Co-ordinator in the National Artificial Intelligence workshop organized by Physithon, Physics society of Kalindi College on 6.2.26

Teaching Experiences (Subject/Courses taught)

- Physics of materials
 - BSc(H)Physics III year annual course
 - BSc(H)Physics III year semester course
- Solid State Physics
 - BSc(H)Physics III year FYUP courses
 - BSC Physical Science IIIyr CBCS
- Heat & Thermodynamics
 - BSc(H)Physics, II year , annual mode
- Thermal Physics
 - BSc(H)Physics, II year , semester mode
 - BSc(G) Group A, Ist year
 - BSc(PS) IInd year semester mode
 - BSc(H)Physics, II year , CBCS mode (3rd Semester)
- Mechanics
 - BSc(H)Physics, Ist year, semester mode
 - BSc(H)Physics, FYUP course
 - BSC GE, Ist yr
- NanoPhysics
 - BSC GE Vth Sem
 - BSC (H) Physics VIIth sem
- Research Methodology
 - BSC (H) Physics VIIth sem
- Waves and oscillations
 - BSC GE, Vth sem
- Foundation course

- Physics, Ist year Hons. and General course
- Physics Labs
 - BSc.(H)Physics III year Annual mode
 - BSc.(H)Physics III year Semester mode(5th & 6th Semester)
 - BSc.(H)Physics III year FYUP mode(5th & 6th Semester)
- Optics and Electricity Labs
 - BSc(H)Physics II year, Annual mode
- Optics Lab
 - BSc(H)Physics II year, Semester mode(4th Semester)
 - BSc(H)Physics II year, FYUP mode(4th Semester)
 - BSc(H)Physics, Ist year, CBCS mode(2nd Semester)
 - BSc PS II year, CBCS mode(4th Semester)
- Healthy and sustainable food choices
 - SEC to all courses

Research Guidance

1. Project Supervisor along with Dr Rachana Kumar for the project entitled (2016-17)

“Study of variation of Thermo-emf using different thermocouples under various modified parameters and its subsequent generation for thermoelectric applications.”

2. Principal investigator along with Dr. Rachana Kumar and Dr. Savita Sharma for the project entitled (2018-19)

To elucidate Fresnel’s equations for reflection of electromagnetic waves at an interface between dielectric media and to correlate the reflection and transmission coefficients of lossless and lossy materials for implication in energy conservation and in potential applications.

3. Principal investigator along with Dr. Rachana Kumar and Mr. Ankur Anand for the project entitled. (2019-21)

To study Carbon Nanotubes (CNT) based gas centre, effect of gas absorption and their selective gas sensing properties.

4. Principal investigator along with Dr. Rachana Kumar and Mr. Ankur Anand for the project entitled. (2021-23)

Simulation and Modeling of Adsorption Kinetics of Single Walled Carbon Nano Tubes for sensing environmentally hazardous gases

5. Principal investigator for interdisciplinary project with Physics and Music Departments (2021-23)

Recording with the influx of Sound dynamics: A novel perspective of Music and Physics.

6. Principal investigator for interdisciplinary project with Physics and history department (2023-25)
“Indian Contribution to Science from Indus valley civilization to Vedic ages: A Historical Perspective”

7. Principal investigator along with Prof. Rachana Kumar for the project (2023-25)
“Analysis of Pseudo first and second order kinetic models for adsorption of hazardous gases on Carbon Nano Tube sensors.”

8. Co-Convenor for the Science project (2024-26)
“Exposition to science advancements with emphasis on role of contemporary Indian women scientists and sensitization in rural areas”, Funded by NASI

Publication (Peer Reviewed/Indexed Journals)

Year of Publication	Title	Journal (Name of the journal. Vol Issue ISSN)	Co-Author
1995	The influence of V^{4+} ion concentration .on EPR spectra of Vandate glasses	J.of Non crystalline solids, vol 181	Dr. Neena Khanijo, Prof. A.Mansingh
1998	The electron paramagnetic resonance and electrical conductivity of V_2O_5 - $ZnCl_2$ - TeO_2 glasses	Philosophical magazine B, Vol. 78	Prof. Abhai Mansingh
Ph.D. Thesis	EPR and Electrical properties of binary V_2O_5 - TeO_2 and ternary V_2O_5 - $ZnCl_2$ - TeO_2 glasses		
2017	Study of generation of thermo-emf as an alternative source of energy using different thermocouples under modified parameters	Yearly academic journal, Kalindi College, ISSN:2348-9014	Rachana Kumar, Aparna, Swati, Tanvi, Anshul, Komal, Kajal
2020	Fresnel's equations in transition from from single to multiple interfaces and evaluation of optical parameters”	Sambodhi (UGC care journal), vol 43, July-September (2020) ISSN:2249-6661	Rachana Kumar, Savita Sharma
2021	Study of adsorption kinetics of pristine and SnO_2 functionalized carbon nanotubes as environment gas	Materials today: proceedings, 47(2021) 1651-1655 ISSN: 22147853	Rachana Kumar, Neeru, Ankur Anand

	sensors for NO ₂ and NH ₃ gases		
2021	Enhanced gas sensing performance on surface functionalization of single walled carbon nanotubes	JOURNAL OF EDUCATION: RABINDRABHARATI UNIVERSITY ISSN: 0972-7175, Vol: XXIII, 2021, p 61-67	Rachana Kumar, Ankur Anand, Neeru
2021	एकल दीवार कार्बन नैनोट्यूब (मूल और टिन ऑक्साइड संशोधित) की वातावरण प्रदूषण गैसों के लिए संवेदक के रूप में उपयोगिता और तुलनात्मक विश्लेषण	Vigyan Prakash, Vol 19, 3, July-September 2021 ISSN: 1549-523-X UGC care Listed Journal	Rachana Kumar, Ankur Anand, Neeru
2022	Rate Kinetics and Isotherm Study of Step Functionalised Carbon Nanotubes Gas Sensor for NO ₂ Adsorption	Materials today: proceedings, 67, 701-708, ISSN: 2214-7853	Rachana Kumar, Ankur Anand, Neeru
2022	The influx of sound dynamics: A perspective of music and Physics	Vageeshwari, UGC Care journal, XXXVI, 39-47, ISSN : 0975-7872	
2023	Analytical modelling of adsorption isotherms for pristine and functionalized carbon nanotubes as gas sensor	International Journal of material research, 114 (7-8), ISSN: 1862-5282	Rachana Kumar, Ankur Anand, Neeru
2023	Metal oxide functionalized single walled carbon nanotubes as gas sensor for environment gases-a review	Kalindi college academic journal, XXII, 63-73, ISSN: 234S-9014	
2023	The effect of ball milling on structural, thermal and optical properties of TiO ₂	Hans Shodh Sudha, 2582-9777, 3(4), 38-46	Aditya
2026	Scientific perspective of Indian Contribution in era of Indus valley Civilization to Vedic era	Kalindi college academic journal, XXV, 84, ISSN: 234S-9014	Prof. Rachana Kumar, Prof. Pushpa Bindal
2026	Investigating the Physiological impact of sound frequencies as per seven chakra theory and W.H.O. Noise Protocols and their impact on human Heart	International Journal of Contemporary Research in Multidisciplinary, 5[Special issue 1], pg 40-46, ISSN: 2583-7397	Prof. Rachana Kumar, Prof. Pushpa Bindal, Anchal
2026	Ancient India's contribution to science	International Journal of Contemporary Research in Multidisciplinary, 5[Special issue 1], pg	Prof. Rachana Kumar, Prof. Pushpa Bindal, Madiha

		124-131, ISSN: 2583-7397	
2026	Optimally functionalized carbon nanotubes showing improved sensor response towards environmental monitoring	Book chapter in Nanomaterials, metamaterials and thin films: A Multidisciplinary Approach to modern engineering, ISSN: 978-93-9543-89-8	Prof. Rachana Kumar, Neeru

Seminar/Workshop/Conferences Presentation/Organisation

- Orientation programme by CPDHE- 1999
- Refresher course by CPDHE- 2001
- Refresher course by CPDHE- 2002
- Participated in NSFD-IX held at NPL- 1996
- Participated in conference on the recent advances in Nano science and Nano technology organised by department of applied sciences and humanities- 2007
- Participated in Indo-Australia symposium on multifunctional Nano materials, Nano structures and applications- 2007
- Participated in two days' Workshop in Quantum mechanics: Theory and Applications organised by DDU- 2008
- Participated in ICT workshop for capacity building of Delhi University faculty- 2009
- Participated in 13th Dr B.N Singh memorial lecture organised by DU- 2015
- Participated in one day work-shop on “**Optics and its applications in information technology**”, organized by department of Physics, SEAS, Bennett University, Greater Noida, 2017.
- Member of organizing committee of National seminar on “**A paradigm shift towards empowerment of women**”, organized by science departments of Kalindi college, 2017.
- Participated and presented a poster on the topic “study of generation of thermo-emf as an alternative source of energy using thermo-couples under modified parameters” with co- author Dr. Rachana Kumar in the National seminar on “**A paradigm shift towards empowerment of women**”, organized by science departments of Kalindi college, 2017.
- Won best poster award in poster presentation competition in the subtheme “Alternative sources of energy” in the National seminar on “**A paradigm shift towards empowerment of women**”, organized by science departments of Kalindi college, 2017.
- Participated in National conference on ‘Technological empowerment of women’ organized by NASI , 8-9 March, 2018
- Resource person in Skill enhancement work shop for lab staff for two days held in Kalindi college, 13-14 March 2018
- Resource person for two sessions in ‘Skill enhancement at institutions of higher learning: Training today and tomorrow’, NAAC sponsored National workshop work shop held in Kalindi colleg, 11 January 2019
- Participated in one day workshop ‘An exposition of perishable products of North East and its challenges, organized by ISBD, kalindi college, March 2019

- Participated in one day National Conference on "Biotechnology in Present Era : Impact on human life and environment" organised by Maitreyi College on 23rd August 2019.
- Participated and presented a poster entitled "Determination of optical and dielectric parameters for single to multiple interfaces using Fresnel equations" with co-author Dr. Rachana Kumar in National conference on Advanced Materials: Theory and Applications organized by Hansraj College on 26-28 September 2019.
- Participated in National seminar on Nuclear, particle and accelerator Physics organized by NASI and Kalindi College, 6th Nov. 2019.
- Participated in National seminar on Laser Dynamics and Fibre optics organised by Shaheed Rajguru College of applied sciences for women on 7th January, 2020.
- Participated and presented a poster on "Single walled Carbon nanotube as environmental sensor for NO₂ and NH₃" with co author Dr. Rachana Kumar, Ankur Anand, Dr. Neeru Mann in 2nd National conference on new trends in nanotechnology and applications held in ARSD college, DU on 6-7th February, 2020.
- Presented an oral talk on "study of Carbon nanotubes as gas sensors, Effect of gas adsorption and their selective gas sensing properties" with Dr. Rachana Kumar in 2nd National conference on new trends in nanotechnology and applications held in ARSD college, DU on 6-7th February, 2020.
- Attended webinar on "Search, Research and Publication ethics", conducted by Kalindi college on 4th May, 2020.
- Attended webinar on "Understanding the Corona virus: some good news" by Prof Dinesh Singh, conducted by Kalindi college Maths Department on 5th May, 2020.
- Attended webinar on "Higher education post COVID", conducted by ARSD college on 7th May, 2020.
- Attended webinar on topic "How the teachers should be ready to handle post pandemic educational challenges", organized by Chennai institute of Technology on 12th May, 2020
- Attended a National webinar on "What is light: Evolution of quantum mechanics" organized by Physics Department, Kalindi college, on 12th May, 2020. Also member of organizing committee.
- Attended a National webinar on "An introduction to measurement of light" organized by Physics Department, Kalindi college, on 13th May, 2020. Also member of organizing committee.
- Attended a National webinar on "science society and exponential change: Reimagining the future" organized by Physics Department, Kalindi college, on 13th May, 2020. Also member of organizing committee.
- Convener for organizing a National webinar on "Emerging out as a winner in lock down" organized by Physics Department, Kalindi college, on 14th May, 2020.
- Attended a virtual symposium on "Emerging Areas of Photonics" organized by NASI and the optical society of India on 16th May, 2020.
- Attended a National Webinar on "Entrepreneurship Aspects on Biodiversity Conservation and indigenous Healing Practices of Northeast India" organised by IBSD center, Kalindi college, on June 2, 2020.
- Completed successfully a National level five day Faculty development program on LATEX, organized by CMR Engineering college in association with Spoken-tutorial IIT Bombay from 1st June 2020 to 5th June 2020.
- Completed successfully a National level five day Faculty development program on Scilab, organized by St. Peter's Engineering college in association with Spoken-tutorial IIT Bombay from 15th June 2020 to 19th June 2020.
- Convener for on line Yoga session, "Yoga for Healthy life" organized by Alumni committee in association with alumni association, Kalindi college on 21st June, 2020.

- Attended a webinar on "leave rules and procedures for university and college employees" conducted by IQAC, Kalindi college on 17th June, 2020
- Attended a webinar "Training sessions for teaching and nonteaching staff" organized by, IQAC, Kalindi college on 11th June, 2020
- Attended a webinar on "face yoga in times of COVID19", organized by Counselling cell, Kalindi college, on 27th June 2020.
- Participated and presented a paper on "Fresnel's equations in transition from single to multiple interfaces and evaluation of optical parameters" in the first online International Conference on "Continuity, Consistency and Innovation in Applied Sciences and Humanities" organized by Department of Science and Humanities of St. Martin's Engineering college, Dhulapally, Secunderabad, T.S. , India on 13th and 14th August, 2020
- Presented an oral talk on "Fresnel's equations in transition from single to multiple interfaces and evaluation of optical parameters" in the first online International Conference on "Continuity, Consistency and Innovation in Applied Sciences and Humanities" organized by Department of Science and Humanities of St. Martin's Engineering college, Dhulapally, Secunderabad, T.S. , India on 14th August, 2020.
- Resource person in a lecture series "Learning Physics by problem solving approach" organized by NASI on 27th Sept, 2020
- Contributed as an evaluator in National Anveshika Experimental skill test, 2020
- Convener for skill enhancement workshop "ICT learning in the period of Online knowledge exchange" organized by Physics Department and IQAC of Kalindi college for University lab staff on 9th and 10th Dec, 2020.
- Resource person on MS WORD for skill enhancement workshop "ICT learning in the period of Online knowledge exchange" organized by Physics Department and IQAC of Kalindi college for university lab staff on 9th and 10th Dec, 2021.
- A selected oral presentation and Poster presentation on "Single Walled Carbon Nanotube as Effective Environmental Sensor for Toxic Gases NO₂ and NH₃ ' and participated successfully in Virtual Conference on Contemporary Research in Physics 2020 organized by Post Graduate Department of Physics, Vijaya College, Bangalore held during 17th to 19th Dec, 2020.
- An oral presentation on Research work in an online National conference "Recent Advances in Functional Materials", organized by ARSD college on 5-6th November, 2020
- Participated in a webinar on "New education policy 2020: Transformational features and challenges" organized by Kalindi college, on 11 Dec, 2020
- Convener for 3 days National workshop "Challenges of teaching online laboratory classes" organized by department of Physics , Kalindi College in association with Department of Physics and Astro Physics , Delhi University partially sponsored by NASI, Delhi chapter on 23-25th January, 2021
- Resource person for "Teaching online Optics lab" in 3 days National workshop "Challenges of teaching online laboratory classes" organized by department of Physics , Kalindi College in association with Department of Physics and Astro Physics , Delhi University partially sponsored by NASI, Delhi chapter on 23rd January, 2021

- Resource person for “Teaching online Solid state lab” in 3 days National workshop “Challenges of teaching online laboratory classes” organized by department of Physics , Kalindi College in association with Department of Physics and Astro Physics , Delhi University partially sponsored by NASI, Delhi chapter on 24rd January, 2021
- Resource person for “Teaching online EMT lab” in 3 days National workshop “Challenges of teaching online laboratory classes” organized by department of Physics , Kalindi College in association with Department of Physics and Astro Physics , Delhi University and partially sponsored by NASI, Delhi chapter on 24rd January, 2021
- Convener for 1 day online National seminar “Learning Physics with Experts” ” organized by department of Physics , Kalindi College, sponsored by NASI , Delhi Chapter on 10th Feb, 2021
- Convener for National webinar on “Geopolitics of Vaccine :Access, R&D and manufacturing” organized by Kalindi College in association with Universal access to vaccine and medicine and swadeshi Shodh Sansthan on 22nd June, 2021.
- Completed successfully TEQIP- III SPONSORED [Five Day Workshop](#) on “Matlab and its Applications, 4-8th January, 2021, Organized By [Rajasthan Technical University, Kota](#) & [Department of Electrical Engineering and Sri Balaji College of Engineering & Technology](#)
- Presented a paper in 2nd Online International Conference on “Continuity, Consistency and Innovation in Applied Sciences and Humanities” (ICCIASH 2021) organized by Department of Science and Humanities of St. Martin’s Engineering College, Dhulapally, Secunderabad, Telangana, India on 29th and 30th July, 2021.
- Completed Successfully a FDP on MOOC's, E-Content Development, Research Methodology and Statistical Tools in Open Education World ’ (3rd August – 17th August 2021) organised by Kalindi College, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi.
- Completed Successfully with GRADE A, FDP on Four-Quadrant Model for Development of E-Content, MOOCs and Teacher’s e-Kit, organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of Ministry of Education, 29th Sept to 8th Oct, 2021
- Presented an oral talk in “International conference on Energy & Advanced Materials (ICEAM-2021) ”organized by Department of Physics and Materials, Jaypee institute of Science and Engineering, Noida, Uttar Pradesh from October 21 – 23, 2021.
- Attended a workshop on “Fundamental and Applications of Physics” organized by Shaheed Rajguru college, 8th Jan 2022
- Successfully completed the two day workshop on “Government e- Marketplace (GeM)” conducted through Google Meet during 27 - 28 January, 2022 by Bhaskaracharya college.
- Oral Presentation at online International Conference on “Recent Advances in Functional Materials” (RAFM-2022) organized by Department of Physics, IQAC and Star College Scheme (GoI), ARSD College University of Delhi from 14 -16th March 2022.
- Oral presentation on topic “The effect of ball milling on structural and Thermal properties of TiO₂” 2nd international conference on “Advanced functional Materials and Devices on 14th March, 2023
- Attended 6days National online workshop on ‘Artificial Intelligence awareness in Physics’ organized by Indian Association of Physics from 15th Feb to 20th Feb, 2024

- Attended two days National seminar on “Women in decision making roles in corporates” organized by Non collegiate women’s education board from 2-3 November 2023
- Presented an oral presentation on Addressing Sector-wise Gender Diversity in Corporates-a way towards Atam-Nirbhar Bharat in National seminar on “Women in decision making roles in corporates” organized by Non collegiate women’s education board on 3rd November 2023
- Completed 5 days Workshop on artificial Intelligence Awareness in Physics organized by Indian Association of Physics Teachers from 15th to 20th Feb, 2024
- Completed Hands on workshop “Mastering MATLAB -2024” organized by Jordan Singh Foundation and AIP on 28July, 2024
- Completed One week online International FDP on “Advanced materials and Characterization techniques” organized by Indian Association of Physics Teachers from Feb. 6- Feb. 6, 2025
- Completed Faculty development program on “ NEP orientation and sensitization “ organized by Malaviya mission teacher training program (MMTTP) from March 3- March 11, 2025
- Attended a workshop “Physics in Action, Experiments for curious minds” organized by department of Physics, Kalindi college on 4.3.25
- Resource person “Carbon nanotubes as gas sensor” Summer internship Program-Nano Explore June-July, 2025 organized by Physics department, Kalindi College
- Resource person “The nano-revolution:Bridging healthcare, environment and technology” Summer internship Program-Nano Explore June-July 2026 organized by Physics department, Kalindi College
- Resource person “Carbon nanotube-Preparation and applications” Summer internship Program-Nano Explore June-July 2026 organized by Physics department, Kalindi College
- Oral presentation on topic “Gender diversity and attrition rate analysis in corporates, implications for viksit Bharat” in International conference on Contours of change in viksit Bharat:Convergence of language, Economy, Politics and History organized by Bhagini Nivedita College, 27 th March, 2026
- Oral presentation on topic “Optimally Functionalized Carbon nanotubes showing improved sensor response towards environment monitoring” in National conference on multifunctional Materials for sustainable organized by Department of Physics, University of Lucknow in association with SAAR Publication, 25-26 Sept., 2025
- Judge, Paper presentation competition, “Entrepreneurship with mushroom cultivation/ Floriculture) organized by plant incubation centre of Kalindi college, 14th Nov., 2025
- Completed FDP on Integerating AI into teaching and research enhancing academic productivity, organized by Institute for development and communication, Research centre of Punjab University, 27-31st Dec., 2025
- Jury member in the district level Startup stormers competition under NEEV initiative organized by directorate of education, Govt of NCT of Delhi on 27th July, 2026

Awards & Distinctions

- Junior research fellowship by CSIR

- Senior research fellowship by CSIR
- Qualified NET 1991
- Won best poster award in poster presentation competition in the subtheme “Alternative sources of energy” in the National seminar on “**A paradigm shift towards empowerment of women**, organized by science departments of Kalindi college, 2017.
- Won best presentation award on the topic “**Addressing Sector-wise Gender Diversity in Corporates: A way towards Atma - Nirbhar Bharat**”, in two days National Seminar on ‘Women in decision making roles in Corporates’ organized by NCWEB , University of Delhi on 2-3rd November, 2023

Public Service/ University Service/ Consulting Activity

Mentoring 15 students of Kalindi college

Professional Societies Memberships

Life Time member of IAPT

Projects (Major Grants / Collaborations)

- Project Supervisor along with Dr Rachana Kumar for the project
“Study of variation of Thermo-emf using different thermocouples under various modified parameters and its subsequent generation for thermoelectric applications.”
(under self – financing category 2016-17)
- Project supervisor along with Dr. Rachana Kumar and Dr. Savita Sharma for the project
“To elucidate Fresnel’s equations for reflection of electromagnetic waves at an interface between dielectric media and to correlate the reflection and transmission coefficients of loss less and lossy materials for implication in energy conservation and in potential applications.”
(Financed by Kalindi college 2018-19)
- Project supervisor along with Dr. Rachana Kumar and Mr. Ankur Anand for the project

“To study Carbon Nanotubes(CNT) based gas centre,effect of gas absorption and their selective gas sensing properties.”

(financed from Kalindi College 2019-21)

- Principal investigator along with Dr. Rachana Kumar and Mr. Ankur Anand for the project “Simulation and Modeling of Adsorption Kinetics of Single Walled Carbon Nano Tubes for sensing environmentally hazardous gases”

(financed from Kalindi College 2021-22)

- Principal investigator for interdisciplinary project with Physics and Music Departments “Recording with the influx of Sound dynamics: A novel perspective of Music and Physics.”

(financed from Kalindi College 2021-22)

- Principal investigator for interdisciplinary project with Physics and history department “Indian “Contribution to Science from Indus valley civilization to Vedic ages: A Historical Perspective”

(financed from Kalindi College 2023-2024)

- Principal investigator along with Dr. Rachana Kumar for the project “Analysis of Pseudo first and second order kinetic models for adsorption of hazardous gases on Carbon Nano Tube sensors.”

(financed from Kalindi College 2023-24)

- Co- convenor for science project entitled “Exposition to Science advancements with emphasis on role of contemporary Indian women scientists and sensitization in rural areas” funded by NASI, Delhi chapter, 2024-26