

PROF.(DR.)BALCHANDRAYADAV**Ph.D., F.N.A.Sc.****Dean**, School of Physical & Decision Sciences**Dean**, School of Engineering & Technology**Dean**, School of Yoga, Naturopathy and Cognitive Studies**Director:** University Sophisticated Instrumentation Center (USIC),
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**EducationQualification**

	Organization	Yearofaward
Undergraduate	Dr. R.M.L. Awadh University, Faizabad	1991
Post-graduation	Dr. R.M.L. Awadh University, Faizabad	1993
Ph.D.	University of Lucknow, Lucknow	2001
Post-DoctoralTraining	KTRICT, Daejeon, South Korea	2010-11

ProfessionalExperience(InYears)**Teaching Experience: 28 years Research****Experience: 23years****Areas of Research (Maximum Five Bullet Points)**

- Nanoscience & Technology
- Physics & Technology of Sensors
- Nano-optoelectronics
- Renewable Energy
- Acoustics

Research/Consultancy Grants

TitleofProjects	Funding Agency	Duration (Specific Dates)	Totalgrant	Role(PI/CO - PI)
To design and fabricate Opto-electronic humidity sensor and other materials	Council of Science & Technology, Uttar Pradesh	7 th May2007- May2010	Rs.5,00,000/-	P.I.

Multimetallic nanoparticles in polymer matrix as precursors of magnetic sensor materials	Department of Science & Technology, New Delhi INDORUSSIAN PROJECT	Jan. 2009 – Jan.2012	Rs.30,00,000/- Approx.	Co P.I./Participant
Synthesis and characterization of nanostructured metal oxides and their applications as Liquefied Petroleum Gas (LPG) Sensors”	University Grants Commission (U.G.C.), Delhi	June2009-December 2012	Rs.8,03,000/-	P.I.
Synthesis of semiconductor metaloxide-based nanocomposites using Sol-Gel and Hydrothermal/solvothermal techniques for the development of humidity and CO ₂ gas sensors	Department of Science & Technology	2010– 2014	Rs. 22,14,000/-	P.I.
Synthesis and Characterization of Thin and Thick Film Opto-Electronic Humidity Sensor Based on Metal Oxide Nanocomposites	Department of Science & Technology (Indo-Russian)	2013– 2016	Rs. 26,84,500/-	P.I.
Preparation and properties of Nanosized spinel and Orthoferite Oxides and their Relevance as Gas Sensor	Board of Research Nuclear Research (BRNS), DAE	2014-18	Rs.24,74,750/-	P.I.
Preparation and properties of self-healing polymer based nanohybrid materials for energy harvesting application	Department of Science & Technology (Indo-Russian)	2019-2021	Rs. 15,70,000/-	P.I.
“Design and Fabrication of Biosensors based on breath analysis technique using nanostructured metaloxide thin films for the detection of diabetes and other diseases”	UPCST, Lucknow, U.P.	2021-2024	Rs.11.19 lakh	P.I.
Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST)” GRANT	Department of Science &Technology	2019-2024	Rs. 78,00,000/-	P.I. & Co-ordinator

Publications

❖ **Research Publications** : >316

No. of Research Papers in peer-reviewed Journals: 286

No. of Research Papers in Conference Proceedings: 07

No. of Review Articles : 24

No. of Research Abstracts published in Proceedings of Conferences: 140

❖ **MEMBER OF EDITORIAL BOARD:**

- *American Journal of Optics and Photonics*, Science Publishing Group, USA.
- SciFed Journal of Petroleum, SciFed Group, USA
- Lucknow Journal of Science, **Print ISSN:** 0974-8121, **Online ISSN:** 0974-813X, **Publisher:** Lucknow University Teacher's Academic Publication Society.
- International Journal of Scientific and Innovative Research 2013; 1(2):93-108, P-ISSN 2347-2189, E-ISSN 2347-4971
- International Journal of Advanced and Applied Sciences, EISSN:2313-3724, I S S N : 2 3 1 3 - 6 2 6 X

International

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285. S Gangwar, P Yadav, A Rani, A Verma, SK Jha, [B C Yadav](#), 2D materials integrated with polymers for Materials Science and Engineering: B 312, 117859, 2025
284. AK Yadav, U Kumar, [B C Yadav](#), Sol-gel-processed CNT-doped LaFeO₃ and its application as LPG sensor, *Journal of Materials Science: Materials in Electronics* 36 (1), 54, 2025
283. A Verma, D Yadav, S Natesan, M Gupta, [B C Yadav](#), Heterostructured binary/ternary MoO₃/Bi₂MoO₆ metal oxide-based acetone sensing devices relevant to non-invasive disease monitoring, *Journal of Materials Chemistry C*, 2025
282. M Gupta, P Chaudhary, DK Maurya, [B C Yadav](#), 2D-MoO₃/Ti₃C₂T_x nanocomposite deposited on borosilicate glass and cotton yarn substrates for acetone sensing, *Surfaces and Interfaces* 56, 105497, 2025
281. A Kaushal, A Verma, A Rani, [B C Yadav](#), An alternative methodology for the detection of benzene ring containing hazardous compounds by zeta potential and absorbance analysis, *Inorganic Chemistry Communications*, 113744, 2024
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278. PR Tiwari, RP Singh, K Bharati, AC Yadav, B Bhardwaj, [B C Yadav](#), Synthesis and Application of Strontium-Doped Zinc Ferrite Nanomaterial in Humidity Sensing, , *Journal of the Indian Chemical Society*, (2024) 101439.
277. Rahul Pratap Singh, Prabhat Ranjan Tiwari, Keval Bharati, Bala Bhardwaj, Kuwar Ankur Singh, [B C Yadav](#), Santosh Kumar Humidity sensing study of cobalt-doped cadmium sulphide nanomaterials, , *Journal of Solid State Electrochemistry*, 28 (7) 2385-2396, 2024.
276. Monu Gupta, Arpit Verma, Priyanka Chaudhary, [B C Yadav](#), MoO₃/V₂CT_x Nanocomposite-Based Wearable Sensor with High Sensitivity for Acetone and Hand Sanitizer Detection at Room Temperature with DFT Analysis, *ACS Applied Electronic Materials*, 6(8) 5626-5639, 2024
275. Ratindra Gautam, Ajeet Singh, Arpit Verma, Vivek Kumar Nautiyal, [B C Yadav](#), Vishal Chaudhary, A novel nanoparticles spilled-over In₂O₃ microcubes-enabled sustainable chemiresistor for

- environmental carbon dioxide monitoring, *Nanotechnology*, 35 (43) 435502, 2024.
274. Priyanka Chaudhary, Chieh-Jui Li, Toton Halder, Yu, Chi-Hua; [B C Yadav](#), Lin, Meng-Fang; Unveiling capacitive humidity characteristic of CdSe quantum dots synthesized by facile route, *Sensors and Actuators A: Physical*, 377, 115759, 2024.
 273. Savita Kumari, Ajaz Hussain, Sarvesh Kumar Avinashi, Rajat Kumar Mishra, Ajeet Singh, [B C Yadav](#), Chandkiram Gautam, Fabrication, structural, morphological, and mechanical behaviour of fly ash doped clay ceramics based CO₂ gas sensor, *Physica Scripta*, 99 (9) 95907, 2024.
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 270. S Singh, A Verma, S Chauhan, RK Tripathi, S Sirohi, [B C Yadav](#), Flexible and efficient ultraviolet photodetectors based on one-dimensional MWCNT filled thermoplastic polyurethane nanocomposite freestanding films, *Journal of Inorganic and Organometallic Polymers and Materials*, DOI: 10.21203/rs.3.rs-4494621/v1, 2024.
 269. A Singh, P Chauhan, A Verma, [B C Yadav](#), Interfacial engineering enables polyaniline-decorated bismuth sulfide nanorods towards ultrafast metal–semiconductor-metal UV-Vis broad spectra photodetector, *Advanced Composites and Hybrid Materials* 7 (3), 1-17, 2024.
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 250. Arpit Verma, Anshika Singh, Priyanka Chaudhary, Ravi Kant Tripathi, [B. C. Yadav](#), D Kumar, Photocurrent conversion capability of a 2D WS₂-polyvinyl alcohol matrix and its DFT-based charge carrier dynamics analysis, *Materials Advances*, 2, 2023, **IF=5.36**
 249. N Singh, S Tanwar, AL Sharma, [B. C. Yadav](#), Economic and environment-friendly carbon-decorated electrodes for efficient energy storage devices, *Journal of Energy Storage* 66, 107452, 2,2023, **IF = 8.907**
 248. Maikesh Mathur, Arpit Verma; Ajeet Singh; [B. C. Yadav](#), Vishal Chaudhary, CuMoO₄ nanorods-based acetone chemiresistor-enabled non-invasive breathomic-diagnosis of human diabetes and environmental monitoring, *Environmental Research*, 2023, **IF=8.4**
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 245. N Singh, S Tanwar, P Kumar, AL Sharma, [B. C. Yadav](#), Advanced Sustainable Solid State Energy Storage device based on FeOOH Nanorod Loaded Carbon@ PANI electrode: GCD cycling and TEM Correlation, *Journal of Alloys and Compounds*, 169580, 2023. **IF= 6.371**
 244. A Singh, S Singh, [B. C. Yadav](#), Gigantic enhancement in response of heterostructured CeO₂/CdS nanospheres based self-powered CO₂ gas sensor: A comparative study, *Sensors and Actuators B:*

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243. A Singh, [B. C. Yadav](#), Green synthesized ZnO/NiO heterostructures based quick responsive LPG sensor for the detection of below LEL with DFT calculations, *Results in Surfaces and Interfaces*, 11, 1001032023.
242. P Singh, NK Pandey, VVS Kumar, V Verma, A Singh, P Gupta, [B. C. Yadav](#), Highly sensitive pure molybdenum trioxide thin films at a higher annealing temperature for liquefied petroleum gas and humidity sensing at room temperature, *Applied Physics A* 129 (4), 250, 2023. **IF=2.983**
241. S Singh, A Dzeranov, L Bondarenko, K Kydralieva, D Iskakova Gulzhian, [B. C. Yadav](#), Modified Fe₃O₄ Magnetite Core@Shell Type Nanomaterials for Highly-Responsive LPG Sensing: A Comparative Analysis, *ECS Sensors Plus*, 2023.
240. A Sharma, P Chaudhary, A Verma, RK Tripathi, R Kumar, M. Gupta, [B. C. Yadav](#)...Novel 3D Lightweight Carbon Foam for Ultrasensitive Humidity Sensor Operated at Different Frequencies, *ECS Journal of Solid State Science and Technology* 12 (2), 027004, 2023. **IF = 2.07**
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232. V Verma, NK Pandey, A Singh, P Singh, P Gupta, [B. C. Yadav](#), Liquefied petroleum gas (LPG) sensing of biphasic Cu₆Sn₅: SnO₂ nanocomposite thin-films, *Materials Chemistry and Physics* 289, 12645922022. **IF= 4.778**
231. S Sikarwar, A Pandey, A Singh, [B. C. Yadav](#), Synthesis of La₂O₃-Cr₂O₃-SrO nanocomposite by pyrolysis of metal carboxylates; its characterization, DFT studies and significance in humidity sensing, IE Uflyand, GI Dzhardimalieva, *Materials Science and Engineering: B* 283, 115813, 1 2022, **IF= 3.407**

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228. R Raj, P Lohia, DK Dwivedi, A Verma, [B. C. Yadav](#), High-responsivity (Ga₂Ge)_{100-x} (Ga₃Sb₂)_x (x = 15, 30, 45, 60) photodetection sensor for optoelectronic applications, *Journal of Materials Science: Materials in Electronics* 33 (22), 17939-17948, 2022. **IF= 2.779**
227. N Singh, S Tanwar, AL Sharma, [B. C. Yadav](#), Advanced cyclic stability and highly efficient different-shaped carbonaceous nanostructured electrodes for solid-state energy storage devices, *International Journal of Hydrogen Energy* 47 (66), 28254-282713, 2022, **IF = 7.139**
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224. A Verma, D Yadav, A Singh, M Gupta, KB Thapa, [B. C. Yadav](#), Detection of acetone via exhaling human breath for regular monitoring of diabetes by low-cost sensing device based on perovskite BaSnO₃ nanorods, *Sensors and Actuators B: Chemical* 361, 131708, 2022. **IF = 9.221**
223. A Verma, P Chaudhary, A Singh, RK Tripathi, [B. C. Yadav](#), ZnS Nanosheets in a Polyaniline Matrix as Metallopolymer Nanohybrids for Flexible and Biofriendly Photodetectors, *ACS Applied Nano Materials*, 2022, 5, 4, 4860–4874. **IF= 6.140**
222. S Singh, P Chaudhary, S Singh, V Verma, R Srivastava, RK Tripathi, [B. C. Yadav](#), Investigation on Metal Nanoparticles: Nickel Oxide, Cuprous Oxide and Tin Ferrite with Their Humidity Sensing at Room Temperature, *Nano LIFE*, 2250001, 2022. **IF= 1.652**
221. A Verma, U Kumar, P Chaudhary, [B. C. Yadav](#) Investigation on structural and optical properties of porous SnO₂ nanomaterial fabricated by direct liquid injection chemical vapour deposition technique, *Solid State Communications*, 114723, 2022, **IF= 1.934**
220. N Singh, S Tanwar, [B. C. Yadav](#), AL Sharma, High efficient activated carbon-based asymmetric electrode for energy storage devices, *Materials Today: Proceedings*, 2022. **IF = 1.46**
219. P Gupta, K Kumar, SH Saeed, NK Pandey, V Verma, P Singh, [B. C. Yadav](#), Influence of tin doping on the liquefied petroleum gas and humidity sensing properties of NiO nanoparticles, *Journal of Materials Research*, 1-11, 2022. **IF = 2.909**
218. LK Gupta, K Kumar, S Sikarwar, [B. C. Yadav](#), Frontal polymerization synthesis of scandium polyacrylamide nanomaterial and its application in humidity testing, ND Golubeva, VA Shershnev, *Colloid and Polymer Science*, 1-12, 2022. **IF = 2.434**

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216. S. Singh, P Yadav, MK Gupta, GI Dzhardimalieva, J Yoon, C Maiti, [B. C. Yadav](#), Gigantic stimulation in response by solar irradiation in self-healable and self-powered LPG sensor based on triboelectric nanogenerator: Experimental and DFT computational study,...*Sensors and Actuators B: Chemical* 359, 131573, 2022. **IF = 9.221**
215. P Dixit, A Singh, SK Avinashi, [B. C. Yadav](#), Fabrication, structural, and physical properties of alumina doped calcium silicate glasses for carbon dioxide gas sensing applications, C Gautam, *Journal of Non-Crystalline Solids* 583, 121475, 2022. **IF = 4.458**
214. P Chaudhary, A Verma, A Mishra, D Yadav, K Pal, [B. C. Yadav](#), ER Kumar, Preparation of carbon quantum dots using bike pollutant soot: Evaluation of structural, optical and moisture sensing properties, *Physica E: Low-dimensional Systems and Nanostructures* 139, 115174, 2022. **IF = 3.369**
213. Z Fatima, C Gautam, A Singh, SK Avinashi, [B. C. Yadav](#), AA Khan, *Journal of Materials Science: Materials in Electronics*, 1-19, 2022 **IF= 2.779**
212. A Balamurugan, RS Priya, P Chaudhary, ER Kumar, T Indumathi, [B. C. Yadav](#), Natural fuel assisted synthesis of Mg–Cu ferrite nanoparticles: Evaluation of structural, dielectric, magnetic and humidity sensing properties, *Ceramics International*, 2022. **IF = 5.532**
211. S Tanwar, A Arya, N Singh, [B. C. Yadav](#), V Kumar, A Rai, AL Sharma, High efficient carbon-coated TiO₂ electrode for ultra-capacitor applications, *Journal of Physics D: Applied Physics* 55 (5), 055501, 2022. **IF = 3.409**
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 17. [B.C. Yadav](#), Richa Srivastava, M. Singh, R. Kumar and C.D. Dwivedi (2007) Humidity Sensing Behavior of Niobium Oxide: Primitive Study, *Sensors & Transducers Journal*, 85(11) 1765-1770. (ISSN: 1726-5479, IFSA, Belgium). **IF=0.756**
 16. [B. C. Yadav](#), Richa Srivastava and Alok Kumar (2007), Characterization of ZnO nanomaterial synthesized by different methods, *International Journal of Nanotechnology and Applications*, 1(2) 1-11. (ISSN 0973631X, Research India Publications).
 15. [B. C. Yadav](#), Amit K. Srivastava and Preeti Sharma (2007), Resistance based humidity sensing properties of TiO₂, *Sensors & Transducers Journal*, 81(7) 1348-1353. (ISSN: 1726-5479, IFSA, Belgium). **IF=0.756**
 14. Richa Srivastava, [B. C. Yadav](#), C.D. Dwivedi and Ritesh Kumar (2007), Comparative Study of Moisture Sensing Properties of ZnO nanomaterials through hydroxide route by mixing Dropwise and Sudden, *Sensors & Transducers Journal*, 80 (6) 1295-1301.(ISSN: 1726-5479, IFSA, Belgium). **IF=0.756**

13. [B. C. Yadav](#), Richa Srivastava and C.D. Dwivedi (2007), Synthesis of ZnO nanorods and their application as Humidity Sensors, *Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry*, 37417-423. Print ISSN: 1553-3174 (ISSN: 1553-3182, Taylor & Francis, Britain). **IF= 0.493**
12. N.K. Pandey, [B. C. Yadav](#) (2007), Fibre Optic Pressure Sensor and monitoring of structural defects, *Optica-Applicata*, XXXVII57-63.ISSN:0078-5466,(Institute of Physics, Wroclaw University of Technology, Poland). **IF= 1.1**
11. [B. C. Yadav](#)(2007), Sol-gel processed Titania films on prism substrates as an Optical Moisture Sensors, *Sensors & Transducers Journal*, 79(5) 1217-1224. (ISSN: 1726-5479, IFSA, Belgium). **IF= 0.756**
10. [B. C. Yadav](#), N.K. Pandey (2007), Study of Optical Humidity Sensing properties of TiO₂ and MgO films, *Sensors & Transducers Journal*, 78(4)1127-1133.ISSN: 1726-5479, (ISSN: 1726-5479, IFSA, Belgium). **IF= 0.756**
9. [B.C. Yadav](#), N.K. Pandey, Amit K. Srivastava and Preeti Sharma(2007), Study of Optical humidity sensor based on Titania Films fabricated by Sol-Gel and Thermal Evaporation Methods, *Measurement in Science & Technology*, 18 1-5. **IF= 1.492**
8. N.K. Pandey, [B.C. Yadav](#), Anupam Tripathi (2006), Monitoring of high pressure with Fiber Optic Sensor, *Sensors & Transducers Journal*, 74(12)834-838. (ISSN: 1726-5479, IFSA, Belgium). **IF= 0.756**
7. N.K. Pandey, [B. C. Yadav](#) (2006), Embedded Fibre Optic Microbend Sensor for measurement of high pressure and crack detection,, *Sensors and Actuators A: Physical*, 128(1) 33-36. (ISSN:0924-4247153, Elsevier, U.S.A.). **IF = 2.201**
6. S.K. Shukla, G.K. Parashar, Puneet Misra, [B. C. Yadav](#), R.K. Shukla, L.M. Bali and G.C. Dubey (2004), Nanolike Magnesium Oxide Films and its significance in optical fiber humidity sensor, *Sensors and Actuators B:Chemical*, 98(1)5-11.ISSN:0925-4005(ISSN:0925-4005, Elsevier,U.S.A.).**IF=5.401**
5. [B.C. Yadav](#), Anchal Srivastava, R.K. Shukla and G.C. Dubey (2006) Improved version of optical humidity sensor with incident light in the form of a conical beam, *Indian Journal of Pure and Applied Physics*,44694-699.ISSN: 0019-5596 (The Council of Scientific & Industrial Research, New Delhi, India). **IF=0.739**
4. [B.C. Yadav](#), R.K. Shukla and L.M. Bali (2005), Sol-Gel Processed TiO₂films on U-shaped glass-rods as optical humidity sensor, *Indian Journal of Pure and Applied Physics*, 43 51-55. ISSN: 0019-5596(The Council of Scientific & Industrial Research, New Delhi, India). **IF=0.739**
3. [B.C. Yadav](#), R.K. Shukla and L.M. Bali (2004), Fiber Optical humidity sensor, *Lucknow Journal of Science*, India, 1(2) 21-23. Print ISSN: 0974-8121Online, ISSN: 0974-813X (Lucknow University Teacher's Academic Publication Society, India).
2. [B.C. Yadav](#)and R.K. Shukla (2003), An Opto-Electronic Sensor to monitor Glucose concentration in water, *Journal of Optics*, 32 13-17. ISSN: 0972-8821, (Optical Society of India). **IF= 0.40**
1. [B. C. Yadav](#)and R.K. Shukla (2003), Titania Films Deposited by Thermal Evaporation as humidity sensor, *Indian Journal of Pure and Applied Physics*, 32(1)13-15. ISSN: 0019-5596 (The Council of Scientific & Industrial Research, New Delhi, India). **IF = 0.739**

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Author/s(Year), Title, Name of Journals, Volume (Issue), Page no.

1. [B. C. Yadav](#) and R.K. Shukla (2003) Titania Films Deposited by Thermal Evaporation as humidity sensor, *Indian Journal of Pure and Applied Physics*, 13-15, Vol.32, No.1, **2003**; ISSN: 0019-5596 (The Council of Scientific & Industrial Research, New Delhi, India). **IF = 0.739**
2. [B. C. Yadav](#) and R.K. Shukla (2003), An Opto-Electronic Sensor to monitor Glucose concentration in water, *Journal of optics*, 32 13-17. ISSN: 0972-8821, (Optical Society of India). **IF= 0.40**
3. [B.C. Yadav](#), R.K. Shukla and L.M. Bali (2004), Fiber Optical humidity sensor, *Lucknow Journal of Science*, India, 1(2) 21-23. Print ISSN: 0974-8121 Online, ISSN: 0974-813X (Lucknow University Teacher's Academic Publication Society, India).
4. [B. C. Yadav](#), R.K. Shukla and L.M. Bali (2005), Sol-Gel Processed TiO₂ films on U-shaped glass-rods as optical humidity sensor, *Indian Journal of Pure and Applied Physics*, 43 51-55. ISSN: 0019-5596(The Council of Scientific & Industrial Research, New Delhi, India). **IF=0.739**

Book Chapters:

Author/s(Year), Title, Name of Book, Publisher, Edition, ISBN No., Page no.

1. A Rani, A Verma, [B C Yadav](#), Metal-organic framework for luminescent thermometers 44-62, 2024
2. A Verma, P Kumar, [B C Yadav](#), **Fundamentals of electrical gas sensors**, Complex and Composite Metal Oxides for Gas VOC and Humidity Sensors Volume 1, Oxides for Gas VOC and Humidity Sensors Volume 1, 2024
3. P Chaudhary, M Gupta, [B C Yadav](#), **Polymer/metal oxide composites and their humidity sensing characteristics**, Complex and Composite Metal Oxides for Gas VOC and Humidity Sensors Volume 1, 2024
4. U Kumar, [B C Yadav](#), WM Huang, CH Wu, **Metal oxide-based nanocomposites designed for humidity sensor applications**, Complex and Composite Metal Oxides for Gas VOC and Humidity Sensors Volume 1, 2024
5. DK Maurya, P Chaudhary, [B C Yadav](#), S Angaiah, **Humidity sensors based on solid-state metal-oxide hybrids**, Complex and Composite Metal Oxides for Gas VOC and Humidity Sensors Volume 1, 2024
6. [B C Yadav](#), A Verma, **Why do we need humidity sensors?** Complex and Composite Metal Oxides for Gas VOC and Humidity Sensors Volume 1, 2024
7. Utkarsh Kumar, R Gautam, Rakesh K Sonker, [B C Yadav](#), Kuen-Lin Chan, Chiu WMH **Micro and Nanofibers-Based Sensing Devices**, Smart Nanostructure Materials and

Sensor Technology, 97-112, 2023

8. U Kumar, CH Wu, K Singh, [B. C. Yadav](#), WM Huang, **Low-Dimensional Advanced Functional Materials as Hazardous Gas Sensing**, 2023, Advanced Functional Materials for Optical and Hazardous Sensing: Synthesis ...
 9. Ajeet Singh, Roop Kishor, Ram Naresh Bhargava, [Bal Chandra Yadav](#), **Existing and Emerging Treatment Technologies for the Degradation and Detoxification of Textile Industry Wastewater for the Environmental Safety**, Bioremediation, CRC Press, pages 1-13, 2022
 10. Deepu Thomas, John-John Cabibihan, Sasi Kumar, SK Khadheer Pasha, Dipankar Mandal, Meena Laad, [Bal Chandra Yadav](#), SI Patil, Anil Ghule, Payal Mazumdar, Sunita Rattan, Kishor Kumar Sadasivuni, **Biodegradable Nanocomposites for Energy Harvesting, Self-healing, and Shape Memory**, 2017, **Smart Polymer Nanocomposites**, 377-397, Springer International Publishing.
 11. V.V. Pathak, Richa Kothari, [B. C. Yadav](#), Yogesh Bandhu and Venkatesh Dutta, **Determinants of Awareness and willingness to pay for solar and biomass based energy generation in rural households of Shravasti district, Uttar Pradesh**, Bridging the Science-policy Gap for inclusive growth in India, pages 133-145, 2016, Edited by R C Sobti and Venkatesh Dutta, ISBN No.978-93-86110-00-8.
 12. **Policy Reforms in Indian Energy Sector to Achieve Energy Security and Sustainability**, Energy Security and Sustainability, ISBN 9781498754439 - CAT# K27407, CRC Press, Taylor & Francis Group, **Chapter 14**, pages 351-360, 2016.
 13. **Development in Metal Oxide Nanomaterial-based Solar Cells**, [B. C. Yadav](#), P. Kumar, S. Singh and R. Kothari, Edited book: *Emerging energy alternatives for sustainable environment*, TERI Press. **ISBN: 9788179934111, Chapter 3**, pages 524-536.
- **Chief Editor** : Proceeding of National Conference on Nanomaterials & Associated Conscious Energy (सूक्ष्म पदार्थ-२०१९)
 - **Chief Editor** : Proceeding of International Conference on Nanoscience & Nanotechnology (ICNN-2017)
 - **Chief Editor** : Proceeding of International Conference on Nanoscience & Nanotechnology (ICNN-2013)
 - **Chief Editor** : Proceeding of National Workshop on Nanomaterials & Nanotechnology (NWNNT-2007)
 - **Guest Editor**: *Special Issue of Journal of Advance Science Letter, APS, USA, Impact Factor: 1.25*
 - **Guest Editor**: *Special Issue of Journal of Advance Science, Engineering & Medicine, APS, USA*
 - **Editor**, *International Journal of Advanced and Applied Sciences, EISSN:2313-3724, Print:2313-626x, Taiwan*

Authored Books			
Dr. Bal Chandra Yadav (Year), Tapiya Bhautiki , Human Resource Ministry & Uttar Pradesh Hindi Sansthan, Lucknow, ISBN: 978-81-89989-30-9			
Dr. Richa Srivastava & Prof. B. C. Yadav (Year) Metaloxides as Nitrogen Oxide Gas Sensor , LAMBERT Academic Publishing, Germany, ISBN:978-3-330-07805-5.			
Edited Books			
Author/s(Year), Title, Name of Book, Publisher, Edition, ISBN No., Page no.			
B. C. Yadav , Pragati Kumar	Complex and Composite Metal Oxides for Gas, VOC, and Humidity Sensors	Volume 1, Elsevier, 2023	ISBN: 978-0-323-95385-6 444
B. C. Yadav , Pragati Kumar	Complex and Composite Metal Oxides for Gas, VOC, and Humidity Sensors	Volume 2, Elsevier, 2023	ISBN: 978-0-323-95476-1 734

Patents

	Inventors	Title and Award/Application no.
Awarded	Nil	
Published	Atul P. Singh, Rajesh K Yadav, Chandni Singh, Pooja Singh, Surabhi Chaubey, Abhishek K Gupta, B. C. Yadav.	Ref. CU 1300, Patent Application No. 202111010716 Applicant : Chandigarh University Title: Prophyrin Containing Covalent Organic Framework and Metal of Synthesis Thereof
Filed 01	Arpit Verma, B. C. Yadav	1202311017604/ TEMP/E1/20233/2023-DEL Title: A method of synthesizing carbon spheres and nanostructured Co ₃ O ₄ hollow spheres
02	Dr. Chandkiram Gautam, Sarvesh Kumar, Shweta, Savita Kumari, Rajat Kumar Mishra, Rakhi, Akash Sachan, Dr. Zaireen	Patent Application No. 202311064285, dated 25/09/2023

	Fatima, Dr. Ajaz Hussain, Dr. Amarendra Gautam, Advanced Glass and Glass Ceramic Research Laboratory, Department of Physics, University of Lucknow, Lucknow, Uttar Pradesh-226007, India Ajeet Singh, and Prof. Bal Chandra Yadav Nanomaterials and Sensors Research Laboratory, Department of Physics, Babasaheb Bhimrao Ambedkar University, Lucknow 226025, Uttar Pradesh, India	
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Research Supervision

	Completed	Ongoing
PG/M.Phil	03	--
M. Tech.	13	--
Ph.D.	26	03
Ph.D.Guided indirectly	06	02
Post-Doctoral	01	1
Inspire Faculty mentor	01	---

Honors, Recognition and Awards:

1. Outstanding Research Achievement Award-2024, BBA University, Lucknow, U.P., India
2. Research and Academic Excellence Award 2024, BBA University, Lucknow, U.P., India
3. Outstanding Research Achievement Award-2023, BBA University, Lucknow, U.P., India
4. Research and Academic Excellence Award 2023, BBA University, Lucknow, U.P., India
5. Outstanding Research Achievement Award-2022, BBA University, Lucknow, U.P., India
6. Research and Academic Excellence Award 2022, BBA University, Lucknow, U.P., India
7. Selected in the list of World's top 2% scientists by Stanford's University, USA for significant academic and research work-2020, 2021, 2022 & 2023.
8. Outstanding Research Achievement Award-2021, BBA University, Lucknow, U.P., India
9. Research and Academic Excellence Award 2021, BBA University, Lucknow, U.P., India
10. Research & Academic Excellence Award-2019, BBA University, Lucknow, U.P., India, Awarded for publishing papers in high Impact Factor Journal by BBA University, Rs. 2.00 lac incentive grant, 10th June 2014.

11. Travel Grant Award-2014 from Department of Science & Technology, Government of India, Delhi for visiting Kuala Lumpur, Malaysia.
12. Most downloaded Paper Award-2012 for Optics and Laser Technology, 57 (2014) 181-188 by Elsevier, USA.
13. International Brainpool Fellowship-2010, The Korean Federation of Science and Technology Societies (KOFST), Government of South Korea.
14. Travel Grant Award-2010 from DST, Delhi for visiting University of South-West Australia, Perth, Australia.
15. Research Grant Award-2010 for Young Scientists from DST, Delhi under SERC scheme.
16. Best Poster Prize: October 2008, International Conference on Biomedical Engineering and Nanotechnology (ICBENT) at D.Y. Patil University, Kolhapur, M.H., India.
17. Research Grant Award-2007 from International Center for Theoretical Physics, Italy for visiting ICTP, Trieste, Italy.
18. Best Poster Award: 2006, International Conference on Nanomaterials for Electronics (ICNME) at C-MET, Pune.
19. Young Scientist Award: 2004-2005 by Uttar Pradesh Council of Science and Technology.
20. ISCA Best Poster Presentation Award: 2002 by Indian Science Congress Association.

Membership of Professional Bodies

❖ Life Member:

- Indian Physics Association (IPA): LM02022-KAN-13683
- Indian Science Congress Association (ISCA) ---10370
- Optical Society of India (OSI) --- L432
- Materials Research Society of India (MRSI) ---- LMB 704
- Lucknow University Teachers Academic Publication Society (LUTAPS)--852
- Lucknow University Physics Alumni Association (LUPAA) --- Not issued
- National Academy of Sciences, India (NASI)

❖ Fellowships:

- Fellow of the National Academy of Science, India (FNASc)

- Research Fellow of INTI International University, Malaysia.
- International Brain Pool Fellow, SKRF, South Korea

❖ **Member of Editorial Board:**

- American Journal of Optics and Photonics, Science Publishing Group, USA.
- Lucknow Journal of Science, **Print ISSN:**0974-8121, **Online ISSN:** 0974-813X,
- **Publisher:** Lucknow University Teacher's Academic Publication Society.
- International Journal of Scientific and Innovative Research
2013;1(2):93-108, P-ISSN 2347-2189, E-ISSN 2347-4971.
- International Journal of Sensors and Sensor Networks, Science PG

❖ **Member of Local Organizing Committees:**

- Global Conference on the Control of Green House Gases at the source by Physical and Chemical Technology (GCGHGSPCT-2K19), 22-24 April, 2019, Department of Chemistry, SPDS, Babasaheb Bhimrao Ambedkar University, Lucknow-26025, U.P., India.
- 6th International Conference on Perspectives in Vibrational Spectroscopy (ICOPVS-2016) November 5-8, 2016, University of Lucknow, Lucknow, U.P., India.
- International Conference on Chemistry and Materials: Prospects and perspectives (ICMPP-2012), Dec. 14-16, 2012, Babasaheb Bhimrao Ambedkar University, Lucknow- 26025, U.P., India.
- International Conference on Radiation Environment- Assessment, Measurement and its Impact, 12-14 April, 2012, Babasaheb Bhimrao Ambedkar University, Lucknow-26025, U.P., India.
- 16th National Seminar on Physics and Technology of Sensors, Lucknow University, U.P., India, 2011.
- 3rd National Conference on Nanomaterials and Nanotechnology, 21st-23rd December 2010, Vol. 1, Issue-1, Nov.-Dec 2010.
- 2nd National Conference on Nanomaterials & Nanotechnology, **Lucknow University**, Lucknow, U.P., India December 21-23, 2009.
- Seminar on Frontiers of Spectroscopy (SFS) November 11-12, 2008, **University**

of Lucknow, Lucknow, India.

- 16th Polychar: World forum on Advanced Materials, World Unity Convention Centre, Lucknow, India, February 17-21, 2008.
- National Conference on Nanomaterials and Nanotechnology, Dec.8-11,2007, **University of Lucknow**, Lucknow, India.
- National Symposium on Advances in Chemical and Materials Sciences, May11-12, 2007, **University of Lucknow**, Lucknow, India.
- 17th AGM of Material Research Society of India, **University of Lucknow**, Lucknow, U.P., India, Feb.13-15 (2006).

Seminar/Conference/Symposia/Workshops Organised

- **Convener:** National Conference on Nanomaterials & Associated Conscious Energy, सूक्ष्मपदार्थ-2019, 1-3, Feb. 2019, BBAU, Lucknow, U.P., India.
- **Chairperson:** Winter Training School on Instrumentation and Characterization (TraSIC), January30-31, 2019, USIC, BBAU, Lucknow-226025, U.P., India
- **Chairperson:** Summer Training School on Instrumentation and Characterization (TraSIC), May 24-25, 2018, USIC, BBAU, Lucknow-226025, U.P., India
- **Chairperson:** Grassroots Innovation Summit & Exhibition (GrISE2017), December14-16, 2017, BBAU, Lucknow-226025, U.P., India
- **Convener (Poster Session):** Association of Microbiologists of India & International Symposium on Microbes for Sustainable Development, Nov. 16-19, 2017, BBAU, Lucknow, U.P., India.
- **Convener:** 2nd International Conference on Nanoscience & Nanotechnology, ICNN-2017, 22-24, Sept. 2017, BBAU, Lucknow, U.P., India.
- **Convener:** International Symposium on Advances in Materials Characterization (ISAMC) July 14, 2014, BBAU, Lucknow, U.P., India.
- **Coordinator:** PROF.VISHWA NATH SYMPOSIUM–XXIII: Advances in Physical Sciences on 6th February 2014, “The 101st Session of Indian Science Congress” held at the University of Jammu, Jammu, during 3-7 Feb. 2014.
- **Coordinator (session):** Jan. 12-13, 2014, North Zone VC meet at BBA University, Lucknow, U.P., India
- **Convener:** 1st International Conference on Nanoscience & Nanotechnology, ICNN-2013, 18-20, Nov. 2013, BBAU, Lucknow, U.P., India.
- **Convener:** *National Workshop on Nanomaterials & Nanotechnology* 24-25th March 2007.

Countries Visited

1. Institute of Problems on Chemical Physics, Chernogoloka, Moscow Region, **Russia**. 12th October-26th October 2021.

2. POLY-CHAR2019, Tribhuwan University, Kathmandu, **Nepal**. May 19-23, 2019.
3. Institute of Problems on Chemical Physics, Chernogoloka, Moscow Region, **Russia**. 25th Feb. 7th March 2016
4. Institute of Problems on Chemical Physics, Chernogoloka, Moscow Region, **Russia**. 25th July 7th August 2014
5. Institute of Materials, Malaysia, Kuala Lumpur, **Malaysia**. 13-16th May, 2014
6. Korean Research Institute of Chemical Technology, Daejeon, **South Korea**, 25th March, 2011 (Brain Pool Scientist)
7. Institute of Problems on Chemical Physics, Chernogolovka, Moscow Region, **Russia**. 6th-17th November 2010
8. University of Western Australia, Perth, **Australia**. 11th-14th July 2010
9. National University, **Singapore**. 30th June-7th July 2007
10. ICTP, Trieste, **Italy**. 30th March 2007-1st May 2007
11. Tribhuwan University, Kathmandu, **Nepal**. 9th Feb. 1994.
12. Tribhuwan University, Kathmandu, **Nepal**. 25th Jan. 1994.

Invited Lectures/Talks/Chair/Co-Chair in Seminar/Conference/Symposia/Workshops

Invited Lectures delivered:

1. International Conference on Advancement in Functional Materials, ICAFM 2024, February 8-10, 2024, Veer Bahadur Singh Purvanchal University, Jaunpur, U.P., India
2. International Seminar on Recent Advances in Multifunctional Materials, MLKPG College, Balrampur, U.P., India, December 17 to 18, 2022.
3. Emerging Materials and their Societal Impact (EMSI-2023) during 06-10th November 2023, NIT, Patna
4. 21st Refresher Course in Physical Sciences & Nano Sciences through online mode organized by HRDC-JNU: September 29, 2023
5. National Seminar on Recent Advances in Multifunctional Materials, MLKPG College, Balrampur, U.P., India, December 17 to 18, 2022.
6. 'Optical and Electron Microscopy of Nanomaterials and their Sensor Applications'. Faculty Recharge Program MMMUT, Gorakhpur, U.P., India 15th Nov. 2022.
7. Special Lecture on “**Sensors as Characterizing Tools**”, **Synergistic Training Program utilizing the Advanced Research Instrumentation (STUTI) Program under DST, Govt. of India**, 22-28, August, 2022, Babasaheb Bhimrao Ambedkar University, **Lucknow-26025**, U.P., India.
8. Special Lecture on “**Scanning Electron Microscope as Characterizing Tool**”, **Synergistic Training Program utilizing the Advanced Research Instrumentation (STUTI) Program under DST, Govt. of India**, 25-31, July 2022, Department of Physics, Bareilly College, Bareilly, U.P., India.
9. National Seminar on Research Methodology, MLKPG College, Balrampur, U.P., India, May 23 to May 24, 2022

10. Global Conference on the Control of Green House Gases at the source by Physical and Chemical Technology, Department of Chemistry, SPDS, Babasaheb Bhimrao Ambedkar University, Lucknow-26025, U.P., India “**Nanostructured metal oxides and their relevance in sensing of NO_x and other hazardous gases**”, 22-24 April 2022.
11. Refresher Course, Special Lecture on **Introduction to Renewable Energy Sources in India and Future Potential**, Human Resource Department, Osmania University, Hyderabad, Telangana, India, 10th March 2022.
12. **Special Lecture on Raman Spectroscopy** in modern reference on National Science Day Celebrations, BBAU University, Lucknow, U.P., India, 28 February 2022
13. Refresher course in Physics and Electronics organized by the Department of Electronics under the aegis of HRDC University of Jammu, “**Nanostructured metal oxides in the polymer matrix and their relevance in sensing of NO_x and other hazardous gases**” during Feb 25 to March 11, 2022
14. Refresher course in Physics and Electronics organized by the Department of Electronics under the aegis of HRDC University of Jammu, “**Development of Optoelectronic Humidity Sensor using metal oxide nanocomposites**” during Feb 25 to March 11, 2022
15. Refresher Course, “**Sensors using metal oxide nanocomposites**”, Central University, Jammu, March 10, 2022
16. Refresher Course, “**Introduction to Nanoscience and Nanotechnology**”, Central University, Jammu, March 11, 2022
17. 27th International Conference of International Academy of Physical Science (CONIPASSXXVII), Department of Physics, Institute of Science, BHU, Varanasi, U.P., India, October 26-28, 2021
18. Special Lecture on **Nanoscience and Nano Technology and It's Applications**, Human Resource Department, Guru Ghasidas University, Bilaspur, Chhattisgarh, India, 19th February 2021.
19. Refresher Course, Allahabad University, Prayagraj, “**Synthesis of nanostructured metal oxides in polymer matrix for NO_x gas sensing applications**” 26th November 2020.
20. Refresher Course, UGC-HRD Centre, Allahabad University, Prayagraj, “**Nanomaterials: Past, Present, and Future**” 25th November 2020.
21. Refresher Course, Jawahar Lal Nehru University, Delhi, “**Introduction to Nanomaterials: Prospects and Perspectives**” 17th November 2020.
22. सूक्ष्मपदार्थ एवं सम्बद्ध चेतन ऊर्जा पर ऑनलाइन राष्ट्रीय संगोष्ठी, भौतिक शास्त्र विभाग, भौतिकीय एवं निर्णय विज्ञान विद्यापीठ, बाबासाहेब भीमराव अम्बेडकर केन्द्रीय विश्वविद्यालय, विद्या विहार, रायबरेली रोड, लखनऊ-226025, उ.प्र., (भारत), २७-२९ सितंबर, २०२०.
23. International Polymer Characterization Forum - POLY-CHAR 2019, May 19-23, 2019, Kathmandu, Nepal.
24. Two days International Conference on “Recent Advances on Interdisciplinary Sciences”, 12-15 January, 2019, Department of Electronics, University of Jammu, Jammu, India
25. National Symposium on Advanced Materials Science (NSAMS 2018) 7-8 December 2018, Department of Physics, DDU Gorakhpur University, Gorakhpur, U.P., India
26. National Seminar on “Recent Innovations in Advanced Materials (RIAM-2018)”, 18-19 September, 2018, CSIR-Advanced Materials and Processes Research Institute (AMPRI), Hoshangabad Road, Near Habibganj Naka, Bhopal 462026, (M. P.) India
27. Special Invited Lecture, 24th July, 2018, Department of Electronics, University of Jammu, Jammu, INDIA.
28. Special Invited Lecture, 16th January, 2018, Department of Physics, CT Bora PG College, Pune University, Pune, MH, INDIA.

29. 1st North India Science Congress (NISC) & International Conference on Science & Technology for sustainable future, 10-11, January, 2018, Babasaheb Bhimrao Ambedkar University, **Lucknow-26025**, U.P., India.
30. Special Invited Lecture, 22 March, 2017, Department of Electronics, Jammu University, Jammu & Kashmir -182320, INDIA.
31. International Conference On Renewable Energy for Sustainable Environment: Challenges and Remedies, 20-21 March, 2017, Department of Energy SHRI MATA VAISHNO DEVI UNIVERSITY Kakrayal, Katra, Jammu & Kashmir - 182320 (India)
32. 4th Lucknow Science Congress (LUSCON)” on Science Technology and Innovations for Sustainable Development, 3-4 March 2017, BBAU, Lucknow, U.P., India.
33. National Seminar on “Nano Science and Biotechnology” on 25-26 February 2017, DAV PG College, Kanpur, U.P., India.
34. National Conference on “Recent Advances and Innovations in Chemical and Materials Science (RAICMS)” on 23-24 February 2017, Shri Jai Narain PG College & DSMNRU, Lucknow, U.P., India.
35. 6th International Conference on Perspectives in Vibrational Spectroscopy (ICOPVS-2016) November 5-8, 2016, University of Lucknow, Lucknow, U.P., India.
36. Application of Physical Sciences in Engineering & Technology (STCAPSET-16), 02-08 July, 2016, Department of Applied Science, M.M.M. University of Technology, Gorakhpur, U.P., India.
37. International Conference on "Environmental systems and sustainable development", Tarachand Bora College, Shirur, Pune, MS, India, 15-16th January, 2016.
38. International Conference on Science and Engineering of Materials for future needs SR & BGNR Arts & Science College, Khammam-507002, Telangana, India, 21-22nd December 2015.
39. National Conference on Physics and Industry Interfaces, Kurukshetra University, 30th July to 1st August, 2015, Kurukshetra, Hariyana, India.
40. National Conference On “Emerging Trends in Nanoscience and Nanotechnology” On 23- 24 December 2014, Department of Physics, Arts, Sci. and Comm. College, Ozar (Mig), Nasik, MS, India.
41. DST-RFBR Project meeting at Metallopolymer Lab, Institute of Problems on Chemical Physics, Chernogoloka, Moscow Region, Russia. 25th July -7th August 2014.
42. “International Conference on Materials Technologies and Exhibitions (ICMTE- 2014), Institute of Materials, Malaysia, Kuala Lumpur, Malaysia. 13-16th May, 2014.
43. “The 101st Session of Indian Science Congress” held at the University of Jammu, Jammu during 3-7 Feb. 2014.
44. “National Conference on synthesis characterization and application of advanced nanomaterials (NCSCAAN 2014)” to be held from 17th Jan to 19th Jan, 2014 at Hindustan College of Science and Technology, Farah (**Mathura**) U.P., India.
45. “National Conference on Materials Science: Trends & Future-2014 (NCMS- 2014)” during 10, 11 January 2014, Bharatiya Mahavidyalaya, **Amravati**, M.H., India
46. "Workshop on Electroactive Materials" on 22-23rd April 2012, School of Materials Science and Technology, Institute of Technology, **Banaras Hindu University, Varanasi-221005**, U.P., India.
47. “Inspire Science Camp”, DST, 16th April to 20th April, 2012, BBS College of Engineering & Technology, Gaddo Pur, Phaphamau, **Allahabad-211013**, U.P., India.
48. International Conference on Radiation Environment-Assessment, Measurement and its Impact, RADENVIRON-2012 (April 12-14, 2012), Babasaheb Bhimrao Ambedkar University, **Lucknow-**

26025, U.P., India.

49. Recent Trends in Nanotechnology and Materials Characterization "RTNMC- 2012" January 12-13, 2012, Prasad Institute of Management and Technology (PIMT), Kanpur Road Banthara, **Lucknow**-227101, U.P., India.
50. Workshop on "NanoSensors" 19-20 September 2011, Amaltas Hall, India Habitat Center, **New Delhi**, India.
51. National Conference on Advances on Nanomaterials and their Applications, 25- 27 February, 2011, DAV College, **Kanpur**, U.P., India.
52. National Conference on Recent Advances in Materials Science 22-24 January, 2011, **Bhusawal**, M.S., India.
53. Indo-Russian Project, 6th-17th November 2010, Institute of Problems on Chemical Physics Chernogoloka, Moscow Region, **Russia**.
54. National Seminar on Preparation of Nanomaterials and their Applications (NSPNA-2010), Feb. 20-22, 2010, ACS College, **Nandgaon, Nasik, M.H.**, India.
55. Symposium on Current trends in Nanoscience and Nanotechnology (CTNT-09), Jan. 15-16, 2009, AVB Indian Institute of Information Technology and Management (**IITM**), **Gwalior, M.P.**, India.
56. "Environment: Assessment and Safety" Jan. 1-5, 2009, NCC Camp of Gramyanchal P.G. College, Haidargarh, **Barabanki**, U.P., India.

Key Note/Plenary Speaker/ Session Chair in various national / international conferences:

1. 5th Divya Yuwajagan karyshala, 15/12/2024, Gaytri Pariwar, Alambagh, Lucknow, U.P., India
2. One Day National Conference on Indigenous Technologies in Physical Sciences for Viksit Bharat 2024, BBAU, Lucknow, U.P., India
3. National Conference on Recent Development in Physical Sciences (NCRDPS) -2024, 15th and 16th February 2024, SPDS, BBAU, Lucknow, U.P., India
4. International Conference on Advancement in Functional Materials, ICAFM 2024, February 8-10, 2024, Veer Bahadur Singh Purvanchal University, Jaunpur, U.P., India
5. 4th Divya Yuwajagan karyshala, 10/09/2023, Gaytri Pariwar, Alambagh, Lucknow, U.P., India
6. 2nd Divya Yuwajagan karyshala, 04/06/2023, Gaytri Pariwar, Alambagh, Lucknow, U.P., India
7. National Seminar on Recent Advances in Multifunctional Materials, MLKPG College, Balrampur, U.P., India, December 17 to 18, 2022.
8. Global Conference on the Control of Green House Gases at the source by Physical and Chemical Technology (GCGHGSPCT-2K19), 22-24 April, 2019, Department of Chemistry, SPDS, Babasaheb Bhimrao Ambedkar University, **Lucknow**-26025, U.P., India.
9. Two days International Conference on "Recent Advances on Interdisciplinary Sciences", 12-15 January, 2019, Department of Electronics, University of Jammu, **Jammu**, India

10. 1st North India Science Congress (NISC) & International Conference on Science & Technology for sustainable future, 10-11, January, 2018, Babasaheb Bhimrao Ambedkar University, **Lucknow-26025, U.P., India.**
11. International Conference on Renewable Energy for Sustainable Environment: Challenges and Remedies, 20-21 March, 2017, Department of Energy Shri Mata Vaishno Devi University Kakrayal, Katra, Jammu & Kashmir -182320 (INDIA)
12. National Conference on "Recent Advances and Innovations in Chemical and Materials Science" Scheduled on 23-24 Feb. 2017 organised at Sri Jai Narain (PG) College, Lucknow, U.P., India
13. International Conference on Science and Engineering of Materials for future needs SR& BGNR Arts & Science College, Khammam-507002, Telangana, India, 21-22nd December, 2015.
14. INTERNATIONAL WORKSHOP: Bridging Development Divide for Inclusive Growth through Science, Technology and Innovation, January 16-17, 2015, Babasaheb Bhimrao Ambedkar University (A Central University) Vidya Vihar, Raebareli Road, Lucknow-226025, U.P., India.
15. National Conference on "Emerging Trends in Nanoscience and Nanotechnology" On 23 -24, December 2014, Department of Physics, Arts, Sci. and Comm. College, Ozar (Mig), Nasik, MH, India.
16. International Symposium on Role of Dendrimers in Nano drug delivery, June14-15, 2014, CDRI New Campus, Lucknow-26021, U.P., India.
17. 2nd Lucknow Science Congress, 27-28 March 2014, Babasaheb Bhimrao Ambedkar University, Lucknow-26025, U.P., India.
18. International Conference on Advancements of Science & Technology: Health and Social Issues, Feb. 18-19, 2014, Babasaheb Bhimrao Ambedkar University, Lucknow-26025, U.P., India.

❖ International Conference/Workshop/Meeting/Symposia Attended

1. Global Conference on the Control of Green House Gases at the Source by Physical and Chemical Technology (GCGHGSPCT-2K19), 22-24 April, 2019, Department of Chemistry, SPDS, Babasaheb Bhimrao Ambedkar University, **Lucknow-26025, U.P., India.**
2. Two days International Conference on "Recent Advances on Interdisciplinary Sciences", 12-15 January, 2019, Department of Electronics, University of Jammu, **Jammu, India**
3. 1st North India Science Congress (NISC) & International Conference on Science & Technology for Sustainable Future, 10-11, January 2018, Babasaheb Bhimrao Ambedkar University, **Lucknow-26025, U.P., India.**

4. DST-RFBR Project meeting at Metallopolymer Lab, Institute of Problems on Chemical Physics Chernogoloka, Moscow Region, Russia. 25th July -7th August 2014.
5. International Conference on Materials Technologies and Exhibitions (ICMTE- 2014), Institute of Materials, Malaysia, Kuala Lumpur, Malaysia.13-16th May, 2014.
6. International Conference on Advancements of Science & Technology: Health and Social Issues, Feb. 18-19, 2014, Babasaheb Bhimrao Ambedkar University, Lucknow-26025, U.P., India.
7. International Conference on Chemistry and Materials: Prospects and perspectives (ICMPP-2012), Dec. 14-16, 2012, Babasaheb Bhimrao Ambedkar University, Lucknow-26025, U.P., India.
8. International Workshop on Physics of Semiconductor Devices, IIT, **Kanpur**,19- 22, December 2011.
9. 5th Australia-Korea Joint Symposium: Resource Recycling-Green and Clean Environment, Korean University of Science and Technology, **Seoul, Korea**,12- 13 May 2011.
10. International Meeting on Chemical Sensors (IMCS-13), 11-14 July 2010, University of Western Australia, **Perth, Australia**.
11. International Conference on advanced nanomaterials and nanotechnology, IIT, **Guwahati, Aasam**, India, December 9-112009, page132.
12. International Conference on Biomedical Engineering and Nanotechnology (ICBENT), October 21-23, 2008, **Dr. D.Y. Patil University**, Kolhapur, M.H., India.
13. International Conference on Materials and Advance Technologies (ICMAT)1st-6th, 2007, Suntec Exhibition Centre, **Singapore**.
14. Workshop on Scientific Instruments and Sensors on the Grid, **ICTP, Trieste, Italy**, 23rd to 28th April 2007.
15. Spring College on Water in Physics, Chemistry and Biology, **ICTP, Trieste, Italy**, 10th to 20thApril 2007.
16. International Conference on Recent Trends on Nanotechnology (ICRTNT), **Jadavpur University, West Bengal**, India, Dec.7th to 9th2006.
17. International Conference on Lasers and Nanomaterials (ICLAN), **University of Calcutta, West Bengal**, India Nov.30th to Dec.2nd 2006.
18. International Conference on MEMS and Semiconductor Nanotechnology, **I.I.T., Kharagpur**, West Bengal, India Dec.20-22 (2005).
19. XIthInternational Workshop on the Physics of Semiconductor devices, **I.I.T. Delhi**, India. Dec.

11-15 (2001).

❖ National Conference/Workshop/Meeting/Symposia Attended

1. National Symposium on Advanced Materials Science (NSAMS 2018)" 7-8 December 2018, Department of Physics, DDU Gorakhpur University, Gorakhpur, U.P., India
2. National Seminar on "Recent Innovations in Advanced Materials (RIAM-2018)", 18-19 September, 2018, CSIR-Advanced Materials and Processes Research Institute (AMPRI), Hoshangabad Road, Near Habibganj Naka, Bhopal 462026, (M. P.) India
3. 1st North India Science Congress (NISC) & International Conference on Science & Technology for Sustainable Future, 10-11, January, 2018, Babasaheb Bhimrao Ambedkar University, **Lucknow-26025**, U.P., India.
4. 4th Lucknow Science Congress (LUSCON)" on Science Technology and Innovations for Sustainable Development, 3-4 March 2017, BBAU, Lucknow, U.P., India.
5. National Seminar on "Nano Science and Biotechnology" on 25-26 February 2017, DAV PG College, Kanpur, U.P., India.
6. National Conference on "Recent Advances and Innovations in Chemical and Materials Science (RAICMS)" on 23-24 February 2017, Shri Jai Narain PG College & DSMNRU, Lucknow, U.P., India.
7. Application of Physical Sciences in Engineering & Technology (STCAPSET-16), 02-08 July, 2016, Department of Applied Science, M.M.M. University of Technology, Gorakhpur, U.P., India.
8. National Conference on Physics and Industry Interfaces, Kurukshetra University, 30th July to 1st August, 2015, Kurukshetra, Hariyana, India.
9. National Conference On "Emerging Trends in Nanoscience and Nanotechnology" On 23- 24 December 2014, Department of Physics, Arts, Sci. and Comm. College, Ozar (Mig), Nasik, MS, India.
10. DST-RFBR Project meeting at Metallopolymer Lab, Institute of Problems on Chemical Physics, Chernogoloka, Moscow Region, Russia. 25th July-7th August 2014.
11. The 101st Session of Indian Science Congress, University of Jammu, Jammu during 3-7 Feb. 2014.
12. National Conference on synthesis characterization and application of advanced nanomaterials (NCSCAAN 2014) to be held from 17th Jan to 19thJan, 2014 at Hindustan College of Science and Technology, Farah (Mathura) U P, India.

13. National Conference on Materials Science: Trends & Future-2014 (NCMS- 2014)” during 10, 11 January 2014, Bharatiya Mahavidyalaya, Amravati, M.H., India
14. Advance Technologies Committee –Technical Program Discussion Meeting (ATC-TPDM), July 8-10, 2013, BARC, **Mumbai**, India.
15. Seminar on “Environment, Education & Society”05th June, 2013, Babasaheb Bhimrao Ambedkar University, **Lucknow**-26025, U.P., India.
16. One day Workshop on “Enhancing Communication Skills of Students in Higher Education: Role of Libraries” 22nd May 2013, Babasaheb Bhimrao Ambedkar University, **Lucknow**-26025, U.P., India.
17. Placement and Employment Prospects in Indian Patent Offices and Hands-on Training for Patenting the research work, 18th March, 2013, Babasaheb Bhimrao Ambedkar University, **Lucknow**-26025, U.P., India.
18. National Workshop on Recent Advances in Materials, 14-15 March, 2013, Department of Physics, University of Lucknow, **Lucknow**-226007, I.P., India.
19. Group Monitoring Workshop (GMW) Jan.11-12, 2013 at Devgiri College, **Calicut**, Kerala, India.
20. National Conference on Science of climate change and Earth’s Sustainability; Issues and challenges, 12-14 Sept. 2011, **Lucknow**, U.P., India.
21. 16th National Seminar on Physics and Technology of Sensors, Lucknow University, **Lucknow**, U.P., India, 2011.
22. 3rd National Conference on Nanomaterials and Nanotechnology, Amity University, **Lucknow**, 21st -23rd December 2010.
23. 2nd National Conference on Nanomaterials & Nanotechnology, Lucknow University, Lucknow, U.P., India, December 21-23, 2009.
24. Seminar on Frontiers of Spectroscopy (SFS) November 11-12, 2008, **University of Lucknow**, Lucknow, India.
25. DST-PACMeeting,7th May to 9th May, 2008, **Sikkim Manipal Institute of Technology**, Majitar, Sikkim, India.
26. National Workshop on Physics and Technology of Sensors,1-2 March, 2008, **University of Pune**, India.
27. 13th National Seminar on Physics and Technology of Sensors,3-5 March,2008, **University of Pune**, India.

28. Workshop for Senior Academicians, February 28-29, 2008, UGC-Academic Staff College, University of Lucknow, **Lucknow-26007**, India.
29. National Conference on Nanomaterials and Nanotechnology, Dec. 8-11, 2007, **University of Lucknow**, Lucknow, India.
30. National Symposium on Advances in Chemical and Materials Sciences, May 11- 12, 2007, **University of Lucknow**, Lucknow, India.
31. National Workshop in Nanomaterials and Nanotechnology, University of Lucknow, **Lucknow**, India, March 24-25, 2007.
32. 94th Session of Indian Science Congress, Annamalai University, **Chidamberam, Tamilnadu**, India, Jan. 37 (2007).
33. "Lecture Course on Quantum Mechanics" Department of Physics, University of Lucknow, Lucknow-226007, U.P., India, Nov. 18th to 19th, 2006.
34. 17th AGM of Material Research Society of India, **University of Lucknow, Lucknow**, U.P., India, Feb. 13-15 (2006).
35. Current Trends on Materials Characterization, **I.I.T, Kanpur**, U.P., India, Dec. 5-7 (2005).
36. 90th Session of Indian Science Congress, **Bangalore University**, Bangalore, India Jan. 37 (2003). (I.S.C.A. Young Scientist Award Programme).
37. National Seminar on scientific and technological words in Hindi, Department of Physics, **University of Lucknow**, Lucknow, U.P., India. Octo. 4-6 (2002).
38. 89th Indian Science Congress, University of Lucknow, Lucknow, India. Jan. 37 (2002).
39. 7th National Laser Symposium, **I.I.T. Kanpur**, India. Dec. 14-16 (1998).
40. 5th National Seminar on Physics and Technology of Sensors, **University of Pune, Pune**, India. Feb. 2-4 (1998).

Additional Information (If any)

❖ Referee of Journals:

<ul style="list-style-type: none"> • Sensors and Actuators A: Physical • Philosophical magazine • Sensors and Actuators-B • Materials Letters • Sol-gel Science and Technology • Sensor Letters 	<ul style="list-style-type: none"> • Journal of Materials Science & Engineering B • Materials & Nano-composite • Solid State Science • IEEE Sensors Journal • Sensors Review • Waste Management & Research
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<ul style="list-style-type: none"> • Current Applied Physics • Measurement • Journal of Materials Science: Materials in Electronics • Journal of Alloy & Compounds • Indian Journal of Pure & Applied Physics • Materials Chemistry and Physics • Chemistry: A European Journal • Journal of Physics and Chemistry of Solids • Materials Letters • Applied Surface Science Advances 	<ul style="list-style-type: none"> • Journal of Science Research & Reviews • Materials & Design • Materials and Manufacturing Processes • Photonic Sensors • Materials Research • Journal of the Taiwan Institute of Chemical Engineers • Super Lattices • Material Research Express • Scientific Reports • Journal of Hazardous Material • Thin Solid Film
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❖ **Member of Editorial Board:**

- ❖ American Journal of Optics and Photonics, Science Publishing Group, USA.
- ❖ Lucknow Journal of Science, **PrintISSN:0974-8121, Online ISSN:0974-813X,**
Publisher: Lucknow University Teacher's Academic Publication Society.
- ❖ International Journal of Scientific and Innovative Research 2013;1(2):93-108 ,P-ISSN 2347-2189, E-ISSN 2347-4971.
- ❖ International Journal of Sensors and Sensor Networks, Science PG

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<https://www.scopus.com/feedback/author/reviewAuthorProfile.uri?authorIds=57203103301>

❖ **No. of Ph. D. Thesis supervised : 26**

1. **Dr. Richa Srivastava** “*Design and Fabrication of undoped and doped ZnO as humidity sensors*” (**BEST THESIS AWARD, MRSI**) August 2008
2. **Dr. Amit Kumar Srivastava**, “*Design and Fabrication of Solid-state Resistive type humidity sensors using Titanium Dioxide*” Jan. 2009
3. **Dr. Anil Kumar Yadav**, “*Design and fabrication of Humidity and temperature sensors using sucro se and cuprous oxide*” September 2009
4. **Dr. Preeti Sharma**, “*Design and fabrication of Solid-state Resistive type Humidity and Gas sensors based on SnO₂ and other additives*”, January 2010
5. **Dr. Monika Singh**, “*Experimental Investigations on Solid-state Humidity sensing properties of Lanthanum, Praseodymium ad Neodymium oxides*”, August 2010
6. **Dr. Ritesh Kumar**, “*Synthesis and characterizations of nanostructured titanium, niobium and tantalum oxides and their applications as Humidity Sensors*”, December 2010
7. **Dr. Anuradha Yadav**, “*Experimental Investigations on Design and Fabrication of Liquefied Petroleum Gas Sensor using Nanostructured Zinc Oxide and its Composites*”, December 2012
8. **Dr. Rajeev Singh**, “*A New Approach to Oxygen Related Donor in Czochralski (Cz) Silicon*” 27 February 2013
9. **Dr. Satyendra Singh**, “*Synthesis and characterizations of nanostructured ferrite composites and their applications as L.P.G. Sensors*”, 30 December, 2013
10. **Dr. Nidhi Verma**, “*Synthesis and characterizations of metal oxide nanocomposites and their applications as Humidity and L.P.G. Sensors*” 9, September 2014
11. **Dr. Rama Singh**, “*Synthesis and characterization of tin oxide based nanocomposites and their application as Humidity Sensors*” 26th May 2015
12. **Dr. Rakesh K. Sonker**, “*Synthesis and characterization of metal oxide based nanocomposites and their application as NO₂ Sensors*”, 21th Sept. 2016
13. **Dr. Ravindra Kumar**, “*Synthesis and characterization of Polymer nanocomposites and their application as Humidity Sensors*” 21th Nov. 2016
14. **Dr. Satyendra Kumar**, “*Synthesis and characterization of nanocomposite Polymer films*” April 18, 2017 (**As Co-supervisor**)
15. **Dr. Saroj Radheshyam Sabhajeet**, “*Synthesis and characterization of nanostructured Titania for gas sensor applications*” Jan. 2018
16. **Dr. Monika Singh**, “*Synthesis and characterization of nanosized Spinel and Orthoferrites and its application as Liquefied Petroleum Gas Sensor*” May 14, 2018
17. **Dr. Samiksha Sikarwar**, “*Synthesis and Characterization of Metal Oxide Nanocomposite Films and their Applications as Opto-Electronic Humidity Sensors*” June 7, 2019
18. **Dr. Utkarsh Kumar** “*Synthesis of nano-carbon structures with functionalized metal oxides and their sensing applications*” August, 2020
19. **Dr. Kuldeep Kumar** “*Investigation on graphene functionalized with metal oxides and their sensing applications*” submitted in 05th June 2021, Awarded in 08 January, 2021
20. **Dr. Priyanka Chaudhary**, “*Investigations on Nanometallopolymers and Quantum dots with their Humidity and Gas sensing Applications*” submitted in 05th September 2021, Awarded in 18 January, 2022
21. **Dr. Rajeev Shukla**, “*Acoustic Analysis of Syllables of Tabla*” submitted in 15th July 2021, awarded on

25th September, 2022

22. Dr. Shakti Singh, “Synthesis and Characterization of Self-healing Nano-Materials and Their Applications” submitted in 25th October 2022, awarded on 15th January 2023.

23. Dr. Nirbhaya Singh, “Study of Carbonaceous Hybrid Nanomaterials for Energy Storage/Conversion Devices”, submitted in 19th August 2023, awarded 5 Feb. 2024

24. Dr. Arpit Verma, Preparation and properties of metallopolymer nanostructures relevant to renewable energy applications, submitted in 9th September 2023, awarded on 05 March 2024

25. Dr. Ajeet Singh, Design and Fabrication of Gas Sensors by using Heterostructured Nanomaterials, submitted in 19th January 2023

26. Mrs. Monu Gupta, Synthesis of metal oxide decorated MXene nanosheets with their relevance in the detection of diabetes and other diseases 5th September 2024

❖ Ph.D. Guided Indirectly: 06

S.No.	Name of student	Year of Award	No. of joint papers	Name of Guide
1.	Dr. Vimallesh Kumar Singh Department of Chemistry, Lucknow University, Lucknow, U.P., India	2012	3	Prof. Kaman Singh
2.	Dr. Archana Singh Department of Physics, Lucknow University, Lucknow, U.P., India	2013	9	Prof. Poonam Tandon
3.	Dr. S M Kang KRICT, Daejeon, South Korea	2012	1	Prof. H J Rue
4.	Dr. Tripti Shukla Department of Physics, Sant Gadge Baba Amravati University, Amravati, India	2018	7	Prof. S. K. Omanwar
5.	Mr. Ajendra Singh Department of Physics, Lucknow University, Lucknow, U.P., India	Under process	4	Prof. Poonam Tandon
6.	Ms. Mridula Singh Department of Physics, Lucknow University, Lucknow, U.P., India	Under process	3	Prof. Poonam Tandon

❖ No. of M. Phil. Thesis supervised: 03

- **Dr. Dhiraj K Maurya**, "Synthesis and characterization of CZTS (Copper, zinc, tin and sulfur) thin film and its opto-electronic humidity sensing capability" 10th June, 2016
- **Dr. Priyanka Chaudhary**, "Investigation and characterization of Copper (II) Nitrate Acryl Amide complex film and its application as humidity sensor" 10th June, 2016
- **Dr. Shakti Singh**, "Design and development of self-healing concretes by vacuum impregnation and encapsulation technique" 27th July, 2017

❖ No. of M. Tech. Thesis supervised : 13

1. **Ms. Swati Singh**, "Synthesis of cuprous oxide nanoparticles through hydrothermal route to develop a sensor for the detections of glucose level and humidity", 19th August, 2018
2. **Ms. Chandra Mohini**, "Green Synthesis and Characterization of Zinc Oxide Nanoparticles and their Application as an Opto-electronic Humidity Sensor" 19th August, 2018
3. **Ms. Sunanda Singh**, "Synthesis & characterizations of nanostructure tin ferrite by different capping agents, their application in wastewater treatment & as humidity sensor" 19th August, 2018
4. **Mr. Navin Chaurasia**, "Synthesis of TiO₂ Nanoparticles and its Application as Dye-sensitized Solar cell (DSSC)" 19th August, 2018
5. **Ms. Mamta Ray**, "Synthesis of Co-doped TiO₂ nanoparticles by means of chemical precipitation method and its application as Opto-electronic Humidity Sensor" 19th August, 2018
6. **Ms. Ekta Singh**, "Catalytic growth of carbon nanotubes via CVD techniques and its application as opto-electronic humidity sensor", 9th June, 2016
7. **Ms. Anamika Katheria**, "Synthesis of Copper Acrylamide complex and its application as opto-electronic humidity sensor", 9th June, 2016
8. **Mr. Satyendra Singh**, "Investigation on loaded microbend and linear fiber optic sensor for crack detection", 9th June, 2016
9. **Ms. Ruchita**, "Nanostructured Lanthanum doped zinc ferrite as LPG and humidity sensor" 9th June, 2016
10. **Mr. Ravi Kumar Rawat**, "Preparation of nanostructured Nickel Oxide and its application as LPG sensor", 9th June, 2016
11. **Ms. Roshni Yadav**, "Synthesis and characterization of nanostructured copper ferrite and its application as LPG sensor" 29th June, 2015
12. **Ms. Priyanka Raj**, "A case study on the effect of varying doping density for the optimization of quantum efficiency of silicon-based nanowire solar cell" 29th June, 2015
13. **Ms. Shivani Rastogi**, "TCAD based simulation of quantum well infrared Photo detector" 29th June, 2015

P.D. students presently registered: 08

Post-Doctoral Fellows:

Dr. Dheeraj Kumar Maurya, NPDF, DST, Delhi

Dr. Ravi Kant Tripathi (DSK-PDF)


Former Ph.D. Scholar, CSIR-NPL, New Delhi

Dr. Sarita Yadav, Inspire Faculty

Status of Student's Placement

S. No.	Name of student	Designation	Organization
1.	Dr. Richa Srivastava	Assistant Professor (Guest Faculty)	B B Ambedkar University, Lucknow, U.P., India
2.	Dr. Ritesh Kumar	Assistant Professor (senior grade)	Urdu Farsi Technical University, Hyderabad, A.P., India
3.	Dr. Amit Kumar Srivastava	Professor	Dr. APJ Kalam Technical University, Lucknow, U.P., India
4.	Dr. Anil Kumar Yadav	Administrative Officer	Class I officer, Ministry of Railway
5.	Dr. Preeti Sharma	Assistant Professor	Gautam Buddha Technical University, Noida, U.P., India
6.	Dr. Rajeev Singh	Assistant Professor (senior grade)	Anna Arts & Science Govt. PG College, Karaikal, University of Pudducheri, India
7.	Dr. Satyendra Singh	Assistant Professor (senior grade)	KNPG College, Gyanpur, Siddhartha University, Kapilvastu
8.	Dr. Nidhi Verma	Assistant Professor	Dr. APJ Kalam Technical University, Lucknow, U.P., India
9.	Dr. Monika Singh	Assistant Teacher	Department of Basic Education, Government of Uttar Pradesh
10.	Dr. Anuradha Yadav	Assistant Teacher	Department of Basic Education, Government of Uttar Pradesh
11.	Dr. Rakesh K. Sonker	Assistant Professor	D D College, Delhi University, Delhi
12.	Dr. Ravindra Kumar	Assistant Professor	Department of Physics, Lovely Professional University, Punjab
13.	Dr. Satyendra Kumar	Assistant Professor	Department of Physics, Gautam Buddha Technical University, Ghaziabad, U.P., India
14.	Er. Priyanka Raj	Assistant Professor	BBD University, U.P., India
15.	Er. Shivani Rastogi	Assistant Professor	BBD University, U.P., India
17.	Er. Ekta Singh	Assistant Professor	Dr. APJ Kalam Technical University, Lucknow, U.P., India
18.	Dr. Archana Singh	Patent Examiner	Ministry of Commerce and Industry, Government of India, Nagpur
19.	Mr. Ajendra Singh	Patent Examiner	Ministry of Commerce and Industry, Government of India, Delhi
20.	Ms. Mridula Singh	Scientist 'C'	DRDO, Delhi
21.	Mr. Naveen Chaurasia	Assistant Professor	VBS Purvanchal University, Jaunpur, U.P., India

21.	Dr. Utkarsh Kumar	Post-Doctoral Fellow	National Chung Hsing University, Taiwan
22.	Dr. Monika Singh	Trainee Scientist	Airlink International, Bangaluru, KA, India
23.	Dr. Rajiv Shukla	India Culture Center	Port Luis, Mauritius
24.	Dr. Priyanka Chaudhary	Post-Doc Fellow	Ming Chi University of Technology, Taipei, Taiwan
25.	Dr. Ravi Kant Tripathi	Assistant Professor	Department of Physics, Lal Bahadur Shastri Smarak Post Graduate College, Maharajganj, U.P., India
26.	Dr. Dhiraj Kumar Maurya	Post-Doc Fellow	National Taiwan University, Taipei, Taiwan
27.	Dr. Shakti Singh	Post-Doc Fellow	Pusan National University, South Korea
28.	Dr. Arpit Verma	Research Associate	Department of Physics, Indian Institute of Technology Ropar, India
29.	Dr. Ajeet Singh	Post-Doc Fellow	Ming Chi University of Technology, Taipei, Taiwan


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 Professor & Head
 Department of Physics
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 B.B. Ambedkar University, Lucknow-226025