University School of Basic & Applied Sciences
GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
"A State University established by the Govt. of NCT of Delhi"
Sector 16-C, Dwarka, New Delhi-110 078

[PROFORMA FOR THE ANNUAL REPORT]
(01-04-2024 to 31-03-2025)

PROFORMA -1

1. Details of the Programme(s) offered by the School:

S. No.	Name of the Programme	Duration	Sanctioned Intake	Total Strength (Year wise)
1	BSc/MSc Dual Degree in Physics, Chemistry and Mathematics	4+1	60 x 3	1st Sem. - 42 3rd Sem. - 20
2	Ph.D. in the discipline of Physics, Chemistry and Mathematics	Minimum duration 3 years	as per available seats	?? (Admitted in 2024)

2. Programme(s) commenced during Academic Session 2024-2025:

S. No.	Name of the Programme	Duration	Sanctioned Intake	Total Strength (Year wise)
	1. BS in Packaging Technology offered in the Indian Institute of Packaging under the aegis of University School of Basic and Applied Sciences	4 Years	60	11
	2. MS in Packaging Technology offered in Indian Institute of Packaging under the aegis of University School of Basic and Applied Sciences	2 years	60	38

3. Details about new facilities in the School/Centre regarding laboratories/seminar hall:

S. No.	Facility	Details of the Facility

4. Publications by the faculty members:

a) Articles published in journals in APA Format

09/10/2025

PROF. RASHMI BHARADWAJ

1. Sangwan, Vinita and Bhardwaj, Rashmi* (2025), Regional Analysis of Influential Meteorological Factors in Daily Precipitation Forecasting Using Machine Learning. IEEE Explore, 00:00. ID 1571094598

2. Garg, Shanky and Bhardwaj, Rashmi (2025). Is your Bank Financially Stable Inspection of financial health of Banks using the novel approach RAAS. International Journal of Mathematics in Operational Research (IJMOR), 00.00. SCOPUS.
3. Inderjeet and Rashmi Bhardwaj* (2025). "An Improved Class of Newton Raphson Method for the Numerical Simulation of Nonlinear Equations." Palestine Journal of Mathematics, 00:00 Scopus.
4. Inderjeet and Rashmi Bhardwaj* (2025). Numerical Simulation of Non – Linear Equation by Modified Secant Method." Journal of Mathematical Analysis, 00:00 Scopus, Web of Science.
5. Inderjeet and Rashmi Bhardwaj* (2025). "Numerical Simulation of Nonlinear Equation by Converting Quadrature Rule to Iterative Technique." Journal of Interdisciplinary Mathematics, 00:00 Scopus, Web of Science.
6. Inderjeet and Rashmi Bhardwaj* (2025). "An Integrated Approach of the Numerical Simulation of Nonlinear Equations by Modified Bisection and Regula Falsi Method." Journal of Interdisciplinary Mathematics, 28(4), pp. 1553-1571, Scopus, Web of Science.
7. Inderjeet and Rashmi Bhardwaj* (2025). "Numerical Simulation of Nonlinear Equations by Modified Bisection and Regula Falsi Method," Proceedings of Pakistan Academy of Sciences: A. Physical and Computational Sciences, 62(1), pp. 873, Scopus.
8. Inderjeet and Rashmi Bhardwaj* (2025). "Enhancing Convergence: A comparative Analysis of the Modified Newton - Raphson Based Iterative Method for Simulating Nonlinear Equations," International Research Journal of Multidisciplinary Scope, 6(1), pp. 857-866, Scopus.
9. Inderjeet and Rashmi Bhardwaj*(2025). Numerical simulation of nonlinear Equations by modified secant method. IAPQR Transactions, 49(1), pp 100-117. UGC CARE
10. Inderjeet and Rashmi Bhardwaj* (2025). "A New Iterative Newton Raphson Technique for the Numerical Simulation of Nonlinear Equations." Journal of Integrated Science and Technology, 13(4), pp. 1080, Scopus.
11. Inderjeet and Rashmi Bhardwaj* (2025). "Numerical Simulation of Non- Equations by modified Newton-Raphson Method." Advances on Nonlinear Variational Inequalities. 28(2), pp. 01-08, Scopus.
12. Inderjeet and Rashmi Bhardwaj*(2025). "Newton Cotes Quadrature R-I Model for the Numerical Simulation of Nonlinear Equations," Advances on Nonlinear Variational Inequalities. 28(1), pp.580-588 Scopus.
13. Shanky Garg and Rashmi Bhardwaj* (2025). "Analysis of Pollution Causing Attributes during Traffic on Roads", Jhanabha, 00:00, UGC Care list.
14. Raj Pareek and Rashmi Bhardwaj* (2025). "Digital Twins based Blockchain model for Space Air Ground Integrated Network (SAGINS). Revista INGLOMAYOR Ingeniena Global Mayor, 25; 00:00,
15. Sepulveda, Mauricio; Sarrut, Thierry Bertrand De Saint Pierre; Soto – Bubert, Andres; Rashmi Bhardwaj; and Acevedo Roberto (2025). Modeling the density of chlorinated brines with nonlinear multivariate regression. Chemical Thermodynamics and Thermal Analysis. 18, CTTA 100181, pp. 1-11, Scopus Q2
16. Soto – Bubert, Andres; Rashmi Bhardwaj; Rajendran, Satheeshkumar and Acevedo Roberto (2025). Viscosity Modeling of chlorinated brines in three – component systems with a continuously variable temperature range between 293-323k, Chemical Thermodynamics and Thermal Analysis. 18, CTTA 100162, pp. 1-13, Scopus Q2
17. Inderjeet and Rashmi Bhardwaj*(2024). "A Novel Geometric Modification to the Regula Falsi Method to Achieve Cubic Order of Convergence." Nanotechnology Perceptions. 20(14), pp. 1183-1189, Scopus.
18. Vinita Sangwan and Rashmi Bhardwaj*(2024). "Machine Learning Framework for Predicting Water Quality Classification," Water Practice and Technology. 19(11), pp. 4499-4521 Scopus, Web of Science.

19. Aashima Bangia and Rashmi Bhardwaj* (2024). "Fractional-ordered Adams-Bashforth Moulton (FABM) method for Controllers' Numerical Simulations for Direct Current (DC) Motors in Electric Vehicles (EVs)". Results in Control and Optimization. 17:10pages. Article no. 100466 ISSN: 2666-7207 SCI/Web of Science, Scopus

20. Soto-Bubert, Andrés; Miranda, Joaquin; Bhardwaj, Rashmi; Rajendran, Satheeshkumar and Acevedo, Roberto (2024). Density modeling of chlorinated brines in two and three component systems. Chemical Thermodynamics and Thermal Analysis. 15(2024)100137. Scopus Q2

21. Bhardwaj, Rashmi* and Garg, Shanky (2024). Water quality parameters entropy estimation. Investigación Operacional, 45(1), 59-64. Scopus.

22. Garg, Shanky and Bhardwaj, Rashmi* (2024). Exploring the influence of factors causing stress among doctoral students by combining fuzzy DEMATEL-ANP with a triangular approach. Scientometrics, 129, 4695-4719. SCI.

23. Garg, Shanky and Bhardwaj, Rashmi* (2024). Multi-Objective and Blockchain Based Optimization Algorithm for Fleet Sharing Management. Opsearch, 61. 1131-1151. Scopus, SCI.

24. Bhardwaj, Rashmi* and Kansal, Divisha (2024). Fluid Simulation using Lattice Boltzmann Method. Indian Journal of Industrial and Applied Mathematics. 15(1&2). 33-38.

25. Lamba, Ekta and Bhardwaj, Rashmi* (2024). Rough Set Method in Machine Learning – A Review. Indian Journal of Industrial and Applied Mathematics. 15(1&2). 76-88.

26. Bhardwaj, Rashmi* and Pareek, Raj (2024). Applications of AI in minning: Relief and Risks (RR). Revista INGLOMAYOR Ingeniena Global Mayor. 24; 17-24

27. Bhardwaj, Rashmi* and Kansal, Divisha (2024) An Assessment of algorithms utilized in the Lattice Boltzmann Methods approach for Medical Image segmentation: A Review. Revista INGLOMAYOR Ingeniena Global Mayor. 24; 29-42

28. Bhardwaj, Rashmi* and Pareek, Raj (2024). The Reflective Lens: Understanding Retrospective Rumination (RR). Revista: INGLOMAYOR.

29. Sangwan, Vinita and Bhardwaj, Rashmi *(2024), Forecasting Groundwater Levels in Gurugram city, Haryana, India with Artificial Neural Networks and Multiple Linear Regression. Springer Proceedings in Physics, 00:00Scopus.

PROF. GULSHAN KUMAR

1. Kumar, K., Tyagi, U., Sirohi, S., Kumar, R., Maity, S. K., Singh, S., Nikita, **Kumar, G.** (2025), A critical review on nanostructure-doped carbonized biomass: A New Era in sustainable supercapacitor technology, **Fuel (Elsevier), I.F-7.5**
2. Maity, S. K., Tyagi, U., Kumar, R., Kumar, K., Nikita, Singh, S., **Kumar, G.** (2025), Graphene enhanced polymer composites: A state-of-the-art perspective on applications, **FlatChem (Elsevier), I.F-6.2**
3. Maity, S. K., Tyagi, U., Sharma, A. K., Bisht, P., Sirohi, S., Kumar, K., Nikita, Singh, S., **Kumar, G.** (2025), Enhancing the electrical performance of chitosan-based triboelectric nanogenerator using graphene nanoplatelets for real-time sports application, **Cellulose (Springer Nature), I.F-4.8**
4. Maity, S. K., Tyagi, U., Kumar, R., Kumar, K., Sirohi, S., **Kumar, G.** (2025), Fabrication of natural polymer-based films for food preservation and packaging application: characteristic assessment of ultra-low graphene content, **Polymer Bulletin (Springer Nature), I.F-4.0**
5. Dahiya, J., **Kumar, G.**, Narula, A. K. (2025), The multifaceted potential of azasugars: Synthetic approaches, molecular interactions, and therapeutic usage, **Journal of Chemistry Letters (Eurasian Science Society), I.F-N/A**
6. Kumar, K., Tyagi, U., Maity, S. K., Singh, S., Nikita, **Kumar, G.** (2024), A strategic approach towards the synthesis of jackfruit peel-based activated carbon: assessment of different activating agents and operating conditions, **Biomass Conversion & Biorefinery (Springer Nature), I.F-4.1**
7. Maity, S. K., Tyagi, U., Bisht, P., Sirohi, S., Pani, B., **Kumar, G.** (2024), Tailoring the physicochemical and dielectric properties of natural polymer using graphene nanoplatelet as filler, **Polymer Composites (Wiley), I.F-4.7**

PROF. LEENA KHANNA

1. Asmita Singh, Charu Bhutani, Pankaj Khanna, Sangeeta Talwar, Sandeep Kumar Singh and **Leena Khanna***. Recent report on indoles as a privileged anti-viral scaffold in drug discovery. *Eur. J. Med. Chem.*, **2025**, 281, 117017. DOI: 10.1016/j.ejmech.2024.117017
2. Mansi, Pankaj Khanna, Shilpa Yadav, Asmita Singh and **Leena Khanna***. Inclusion complexes of novel formyl chromone Schiff bases with β-Cyclodextrin: Synthesis, characterization, DNA binding studies and in-vitro release study. *Carbohydrate Polymers*, **2025**, 347, 122667. DOI: 10.1016/j.carbpol.2024.122667
3. Mansi, Pankaj Khanna, Shilpa Yadav, Asmita Singh and **Leena Khanna***. *In silico* screening of dicoumarols as potential *Mur B* enzyme inhibitors in *Mycobacterium tuberculosis*: molecular docking, ADME, QSAR and MD simulations. *J. Biomol. Struct. Dyn.*, **2024**, 1–16. DOI: 10.1080 /07391102 .2024. 2443126
4. Shilpa Yadav, Mansi, Neeti Misra, Pankaj Khanna and **Leena Khanna***. Novel 10,11-Dihydro-5H-dibenzo[b,f]azepine Triazoles Hybrids: Synthesis, in vitro Antioxidant activity and Xanthine oxidase inhibition and Computational study. *J. Mol. Str.*, **2024**, 1312 (1), 138639. DOI:10.1016/ j.molstruc.2024.138639
5. Mansi, Upasna Balyan, Charu Bhutani, **Leena Khanna***, Satya Rao, Rita Singh, Pankaj Khanna. Ultrasound-Assisted Extraction, Optimization, Phytochemical Screening and Analysis of Phenolics from Cycas Zeylanica and Antioxidant Activity Evaluation. *Chem. Biodiversity*, **2024**, 21(4), e202301436. DOI:10.1002/cbdv.202301436

PROF. VAISHALI SINGH

1. A. Singh, S. Mohapatra, M. Tomar, A. Chowdhuri, V. Singh , Low temperature NO2 gas sensing achieved by mesoporous SnO2. Journal of Alloys and Compounds, 1013, (2025) (I.F. 5.8) https://doi.org/10.1016/j.jallcom.2025.178592
2. A.Singh, M. Vats, S. Mohapatra, V. Singh , Facile synthesis of mesoporous tin oxide particles: effect of synthetic routes. J Mater Sci 60, 7273–7288 (2025) (I.F. 3.5) https://doi.org/10.1007/s10853-025-10884-9
3. M. Vats, A. Singh, R.K. Kotnala, J. Shah, V. Singh, Eco-friendly urea-assisted m-SnO2-based hydroelectric cell for green energy production. New Journal of Chemistry, 49, 4072-4084 (2025) (I.F. 2.5) https://doi.org/10.1039/D4NJ04280H
4. A. Singh, M. Vats, S. Mohapatra, M. Tomar, A. Chowdhuri, V. Singh , Template-assisted mesoporous SnO2 based gas sensor for NO2 detection at low temperature. J Porous Mater 31, 545–555 (2024) (I.F. 2.5) https://doi.org/10.1007/s10934-023-01528-x

PROF. RAJESH KUMAR

1. Kumar, Rajesh, "120 MeV Ag high energy irradiation effects in physical and chemical properties of ALD grown HfO2 thin films and their applications." Journal of Radioanalytical and Nuclear Chemistry 333, no. 10 (2024): 4749-4756. (Springer).
2. Bansal, Muskaan, Naveen Jyoti, Aniket Bharti, Shweta Sharma, Manoj Thakur, Vishnu Chauhan, and Rajesh Kumar. "Green synthesis of nanomaterials used as nano-fertilizer for sustainability in crop production: A overview on recent advancements and future perspectives." Plant Nano Biology (2025): 100143.(Elsevier).
3. Singh, Paramjit, Avtar Singh, Rashmi Saini, Pawan Kulriya, and Rajesh Kumar. "Advancements in graphene-based nanostructured conducting polymer hybrid composite electrodes for high-performance supercapacitors. & quot; Journal of Power Sources 630 (2025): 236176. (Elsevier).
4. Bharti, Aniket, Abhinav Kumar, Manveer Singh, Lucky Sharma, Vishnu Chauhan, Sukhvir Singh, Rajesh Kumar, and P. D. Sahare. "Synthesis and ML study of Li3PO4 for γ-ray dosimetry." Journal of Radioanalytical and Nuclear Chemistry (2024): 1-10. (Springer).
5. Sharma, Saloni, Kanchan L. Singh, Mukesh Kumar, Rajesh Kumar, and Sangeeta Prasher. "Ni Ion-Induced Optical, Structural, and Electrical Properties of Polyaniline/Polyvinyl Chloride Composites." Journal of Electronic Materials (2024): 1-12. (Springer).
6. Deepika, Deepika Gupta, Vishnu Chauhan, Satyendra Kumar, Paramjit Singh, S. K. Sharma, Shalendra Kumar, and Rajesh Kumar. "Influence of Swift Heavy Ion Beam Irradiation on Optical, Structural, and Surface Morphological Properties of WO3 Thin Films Grown by RF Sputtering Method." Journal of Electronic Materials (2024): 1-12. (Springer).

7. Natanasabapathi, Gopishankar, SourabShyleshan, Rajesh Kumar, Mukesh Kumar Yadav, Aruna Kaushik, and Pratik Kumar. "Study of Dosimetric properties of LiB3O5: Ag using the OSL/TA-OSL method for Medical Radiation Application."Journal of Electronic Materials (2024): 1-11. (Springer).
8. Saloni, Sharma, Kanchan L. Singh, Kumar Mukesh, Kumar Rajesh, and Prasher Sangeeta. "A comparative study of gamma radiation-induced modifications in optical and structural properties of PANI/PVC composites." Journal of Radio analytical and Nuclear Chemistry (2024): 1-8. (Springer).
9. Sawane, Mohini, Mahanth Prasad, and Rajesh Kumar. "Design and Optimization of a Piezoelectric Acoustic Sensor for Fluid Leak Detection Applications." Journal of Electronic Materials (2024): 1-6. (Springer).
10. Kumar, Pankaj, Rajesh Kumar, and Mukesh Kumar. "Assessment of potential risk of cancer due to natural gamma dose rate around Harduaganj Thermal Power Station, Aligarh, UP, India." Journal of Radioanalytical and Nuclear Chemistry (2024): 1-11.
11. Singh, Paramjit, Rashmi Saini, Rajesh Kumar, and Avtar Singh. "Novel Composites: Synergistic Effects of Graphene Oxide, Conducting Polymers and Metal Oxides in Supercapacitor Electrodes." Journal of Fluid Flow, Heat and Mass Transfer (JFFHMT) 11, no. 1 (2024): 322-334. (Springer).
12. Kumar, Rajesh, Deepika Gupta, Muskaan Bansal, Naveen Jyoti, and Ashok Kumar. "Low energy Xe ion beam engineering in optical, structural and morphological properties of hafnium oxide thin films grown by atomic layer deposition technique." Journal of Radioanalytical and Nuclear Chemistry (2024): 1-6. (Springer).
13. Verma, Radha, Sahil Goel, Komal Verma, Krishan Kant, Rajesh Kumar, Maneesha Garg, and Rashi Gupta. "Study of Di-/Ferro-/Piezoelectric Properties of Sm3+-Doped ZnO Nanoparticles." Journal of Electronic Materials (2024): 1-15. (Springer).
14. Saini, Rashmi, Paramjit Singh, Rajesh Kumar, Pawan Kulriya, and Shalendra Kumar. "Facile Synthesis of Polypyrrole/Reduced Graphene Oxide Composites for High-Performance Supercapacitor Applications." Journal of Electronic Materials (2024): 1-10. (Springer).
15. Gupta, Deepika, Sonica Upadhyay, Abhimanyu Singh Rana, Satyendra Kumar, Deepika, Aniket Bharti, Vivek Kumar Malik, Sanjay Kumar Sharma, Manoj Kumar Khanna, and Rajesh Kumar. "Enhanced Mobility in MoS2 Thin Film Transistors Through Kr Ion Beam-Generated Surface Defects." Journal of Electronic Materials (2024): 1-14. (Springer).
16. Singh, Paramjit, Rashmi Saini, Rajesh Kumar, and Pawan Kulriya. " Advanced Nanostructures Derived from Hybrid Composite of Polyaniline and rGO for High-Performance Supercapacitor Applications." Journal of Electronic Materials (2024): 1-9. (Springer).
17. Dhale, Shruti, Nilesh Ugemuge, Vartika S. Singh, S. R. Dhakate, Aniket Bharti, Rajesh Kumar, and S. V. Moharil. "Study of Luminescence Behavior in Dy3+- Activated Ba3Ca2 (PO4) 3F." Journal of Electronic Materials (2024): 1-11.(Springer).
18. Bharti, Aniket, Deepika Gupta, Deepika, Manoj Kumar Khanna, and Rajesh Kumar. "Low-Energy Xe Ion Beam-Mediated Defect Engineering in Optical, Electronic, Structural, and Morphological Properties of Sputtered MoS2 Thin Films." Journal of Electronic Materials (2024): 1-12. (Springer).
19. Deepika, Kumar, Rajesh. "Low-Energy Au Ion Beam Implantation in the Optical, Structural, and Surface Properties of RF-Sputtered WO3 Thin Films." Journal of Electronic Materials (2024): 1-15. (Springer).
20. Kajal, Sunidhi Badola, Abha Shukla, Jyoti Shah, Deepika, and Rajesh Kumar. "Increased Green Electricity Generated in Carbon-Doped TiO2-Based Hydroelectric Cell." Journal of Electronic Materials (2024): 1-10. (Springer).
21. Nasit, Manas, Ankush Vij, Rajesh Kumar, Ranjeet Kumar Brajpuriya, Saurabh Dalela, Parvez A. Alvi, and Shalendra Kumar. "Investigation of the Structural and Optical Properties of g-C3N4/ZrO2 Nanocomposites." Journal of Electronic Materials (2024): 1-12. (Springer).
22. Kumar, Shalendra, Adil Alshoaibi, Ravina, Kavita Kumari, Faheem Ahmed, Nagih M. Shaalan, Saurabh Dalela, Rajesh Kumar, and P. A. Alvi. "Synergistic Effect of Electrolytes on the Electrochemical Performance of CoFe2O4 Nanoparticles as Anode Materials for Supercapacitor Applications." Journal of Electronic Materials (2024): 1-10. (Springer).
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PROF. NEELESHWAR

1. Panwar, A., Malik, V., Mahanti, S. D., Sonnathi, N., & Bagga, A. (2025). High-temperature effects on oscillatory conductivity in disordered quantum dot arrays: Role of Coulomb interactions and localization length. Journal of Applied Physics, 137(11). DOI: https://doi.org/10.1063/5.0238227
2. Bairwa, M. K., Saini A., Gowrishankar R., & Sonnathi, N. (2025). Engineering SnSe Nanoparticles via High-Energy Ball Milling and Melting: A Comparative Study on Phase and Structural Properties. Phys. Status Solidi A 2400550. DOI: https://doi.org/10.1002/pssa.202400550
3. Singh D, Samtham M, Bisht N, Choudhary E, Kumar V, Jangir R, Sonnathi N, Hosmani SS, Katre A, Devan RS. (2024). Theoretical and experimental studies on 2D β-NiS battery-type electrodes for high-performance supercapacitor. Electrochimica Acta. 506, 144998. DOI: https://doi.org/10.1016/j.electacta.2024.144998

PROF. KRITI BATRA

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PROF. LEENA KHANNA

1. Asmita Singh, Charu Bhutani, Pankaj Khanna, Sangeeta Talwar, Sandeep Kumar Singh and **Leena Khanna***. Recent report on indoles as a privileged anti-viral scaffold in drug discovery. *Eur. J. Med. Chem.*, **2025**, 281, 117017. DOI: 10.1016/j.ejmech.2024.117017
2. Mansi, Pankaj Khanna, Shilpa Yadav, Asmita Singh and **Leena Khanna***. Inclusion complexes of novel formyl chromone Schiff bases with β-Cyclodextrin: Synthesis, characterization, DNA binding studies and in-vitro release study. *Carbohydrate Polymers*, **2025**, 347, 122667. DOI: 10.1016/j.carbpol.2024.122667
3. Mansi, Pankaj Khanna, Shilpa Yadav, Asmita Singh and **Leena Khanna***. *In silico* screening of dicoumarols as potential *Mur B* enzyme inhibitors in *Mycobacterium tuberculosis*: molecular docking, ADME, QSAR and MD simulations. *J. Biomol. Struct. Dyn.*, **2024**, 1–16. DOI: 10.1080/07391102.2024.2443126
4. Shilpa Yadav, Mansi, Neeti Misra, Pankaj Khanna and **Leena Khanna***. Novel 10,11-Dihydro-5H-dibenzo[b,f]azepine Triazoles Hybrids: Synthesis, in vitro Antioxidant activity and Xanthine oxidase inhibition and Computational study. *J. Mol. Str.*, **2024**, 1312 (1), 138639. DOI:10.1016/j.molstruc.2024.138639
5. Mansi, Upasna Balyan, Charu Bhutani, **Leena Khanna***, Satya Rao, Rita Singh, Pankaj Khanna. Ultrasound-Assisted Extraction, Optimization, Phytochemical Screening and Analysis of Phenolics from Cycas Zeylanica and Antioxidant Activity Evaluation. *Chem. Biodiversity*, **2024**, 21(4), e202301436. DOI:10.1002/cbdv.202301436

PROF. SHIPRA MITAL GUPTA

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PROF. RAM SHANKAR GUPTA

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2. Savita Rani, Ram Shankar Gupta, Young Jin Suh, η-∗Einstein Hopf real hypersurfaces in the complex space forms, Filomat 39:10 (2025), 3227–3237.

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PROF. ANINDYA DATTA

1. Cupric ion-functionalized polyaniline/single-walled carbon nanotube hybrids for dimethyl methylphosphonate detection; J Mater Sci: Mater Electron 35, 652 (2024). https://doi.org/10.1007/s10854-024-12426-6; Himanshu, Ankit Choudhary, Kunal, Rishabh Mudgal, Karan Singh, Anindya Datta, and Tapan Sarkar.

DR. SATYABRATA MOHAPATRA

1. Alka Singh, Satyabrata Mohapatra, Monika Tomar, Arijit Chowdhuri, Vaishali Singh, Low temperature NO 2 gas sensing achieved by mesoporous SnO 2 , Journal of Alloys and Compounds 1013, 178592 (2025) (Impact Factor: 5.8)
2. Shipra Choudhary and Satyabrata Mohapatra, Boosting sunlight driven photocatalytic and catalytic performance of ZnFe 2 O 4 -ZnO nanohybrids by loading Ag nanoparticles, Journal of Photochemistry & Photobiology, A: Chemistry 455, 115797 (2024) (Impact Factor: 4.3)
3. Shipra Choudhary, K. P. Sooraj, Mukesh Ranjan and Satyabrata Mohapatra, Facile fabrication of Au nanoparticles loaded Ce doped ZnO nanorods for efficient catalytic and photocatalytic decomposition of toxic pollutants in water, Inorganic Chemistry Communications 165, 112482 (2024) (Impact Factor: 4.4)
4. Shipra Choudhary, K. P. Sooraj, Mukesh Ranjan and Satyabrata Mohapatra, Facile synthesis, microstructural, morphological, catalytic, optical, and photocatalytic properties of Ag nanoparticles loaded Ce doped ZnO hybrid plasmonic nanorods, Inorganic Chemistry Communications 169, 113008 (2024) (Impact Factor: 4.4)
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DR. ANJANA BAGGA

1. High-temperature effects on oscillatory conductivity in disordered quantum dot arrays: Role of Coulomb interactions, Anjali Panwar, Vikas Malik, Subhendra D Mahanti, Neeleshwar Sonnathi, Anjana Bagga Journal of Applied Physics 137, 114302 (2025)

MR. MUKESH

1. Lalit Kumar, Guruvandra Singh, R. Bhatt, Mukesh Kumar, M. Soharab, Indranil Bhaumik, Abhilasha Chouksey, Chitra Gautam, Mukesh Jewariya, Effect of 0.015 mol % cobalt (Co) doping on the broadband terahertz optical properties of congruent LiNbO3 single crystal, Infrared Physics & Technology 147 (2025) 105823

PROF. SHRUTI AGGARWAL

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PROF. Y. K. TYAGI

1. Braham Prakash, Amit Saxena, **Yogesh Kumar Tyagi,** Kavita Devi, Rajesh Kumar Tanwar, and Arvind Kumar. Maltose based pyrotechnic aerosol forming composite for fire extinguishing application, **Fire phys chem, 2024,** 5 (2), 190-200. https://doi.org/10.1016/j.fpc.2024.09.003.

2. Vaishali Prashar, Manu Nandal, Rajinder K. Gupta, and **Yogesh Kumar Tyagi***. Novel Synthesis, and Application of Carboxymethylated Cassia fistula-BasedHydrogel for Extended-Release of Dinotefuran, **Chemistry Select,2024,** 9, 1-12.

b) Full papers published in the Conference Proceedings in APA format

1. Inderjeet and Rashmi Bhardwaj* (2024). "AI Integrated Model Design for Education System for Analytical Computation." IEEE Xplore Digital Library (ICACITE 2024). pp. 1412-1417 Scopus.

c) Book/Book Chapters in APA Format

PROF. RASHMI BHRADWAJ

30. Bhardwaj, Rashmi* and Kansal, Divisha. (2025). Prompt-Based Generative Models for Medical Imaging Application. Wiley book. Eds. Sathyamoorthy, M., Dhanaraj, R.K., Vaidyanathan, A. Prompt Engineering and Generative AI: Challenges and Solutions; 00-00 Indexing- Scopus. Publisher Wiley.
31. Garg, Shanky, Bhardwaj, Rashmi* (2024). Application of EM with Machine learning approach for the estimation of water quality parameters. Pp 44-50. ICCW 2024 conference Publisher: Istanbul Aydin University Publication.
32. Inderjeet and Rashmi Bhardwaj*(2024). Water Resources Management Under Climate Change. Pp 222-230 ICCW 2024 Publisher: Istanbul Aydin University Publication
33. Chaudhary, Kajal and Bhardwaj, Rashmi *(2024). Impact of Varying Climate Conditions on Irrigation Water Demand and Food Availability. Pp 142-154. ICCW 2024 conference Publisher: Istanbul Aydin University Publication.
34. Sangwan, Vinita and Bhardwaj, Rashmi *(2024). Assessing River Flow Patterns in the context of climate change – A Machine Learning Framework. Pp 34-43 ICCW 2024 conference Publisher: Istanbul Aydin University Publication.
35. Bhardwaj, Rashmi*, and Chaudhary, Kajal. (2024). A Comparative Study of Neural Networks and Time Series Analysis for Water Assessment. Ed: Akhilesh Kumar Yadav submitted in Computational Techniques in Environmental Engineering. ISBN Number – 978 1-032-79694-9. Publisher: CRC Press, Taylor & Francis Group.
36. Sangwan, Vinita and Bhardwaj, Rashmi* (2024). Soil remediation using PCA and HCA. Ed: Akhilesh Kumar Yadav. Computational Techniques in Environmental Monitoring. ISBN Number – 978-1-032-79694-9, Indexing – Scopus, Web of Science Publisher: CRC Press Taylor & Francis Group.
37. Bangia, Aashima.; Bhardwaj, Rashmi*.; Datta, Debabrata. (2024). Forecasting the COVID 19 pandemic through the hybridization of Machine Intelligent Algorithms. Chapter: 50. Artificial Intelligence in Biomedical and Modern Healthcare Informatics. ISBN: 9780443218705. Pp 313-321. Editors: M.A. Ansari, R.S. Anand, Pragati Tripathi, Rajat Mehrotra, and Md Belal Bin Heyat. Publisher: Elsevier.

38. Sangwan, Vinita and Bhardwaj, Rashmi* (2024). Application of Machine Learning Model for Assessing Water Quality Index. Ed: Akhilesh Kumar Yadav, Kanchan Yadav, Vijay P. Singh. Integrated Management of Water Resources in India: A Computational. Pp 291-308. ISSN Number – 0921-092X. Publisher – Springer.

39. Bhardwaj, Rashmi*, and Chaudhary, Kajal. (2024). Soft Computing Techniques Based Assessment of Water Quality. Ed: Akhilesh Kumar Yadav, Kanchan Yadav, Vijay P. Singh Integrated Management of Water Resources in India: A Computational Approach. Pp 257 270. ISBN Number – 0921-092X. Publisher Springer.

40. Bhardwaj, Rashmi, & Acevedo, Robert (2024). Stochastic Locomotive of Nanofluid(s), Editors Gowrisankar Arulprakash, Kishore Bingi, Cristina Serpa, Mathematical Modelling of Complex Patterns through Fractals and Dynamical Systems, Series Studies in Infrastructure and Control. Pp 171-186. ISBN: 978-981-97-2343-0. Publisher: Springer Nature.

41. Garg, S., Bhardwaj, Rashmi*, & Datta, Debabrata (2024). Study of the heat transfer and simulation through a nanotube for Distribution Function D2Q9 using the Lattice Boltzmann Method, Editors: Varde P. V.; Vinod, G.; Joshi, N S. BARNS DAE (ICRESH 2024 Conference Proceedings) pp 847-858, ISBN: 978-981-97-3086-5. Publisher: Springer.

PROF. GULSHAN KUMAR

1. S. K. Maity, U. Tyagi, and **G. Kumar**, "Flexible Temperature Sensor," in *Luminescent Thermometers*, New York: CRC Press, 2024, pp. 260–286. doi: 10.1201/9781032661537-13.
2. S. K. Maity, U. Tyagi, K. Kumar, and **G. Kumar**, "Innovative GO Membranes: An Insight Into the Fabrication and Wastewater Treatment," in Innovative Materials for Environmental and Aerospace Applications, IGI Global Scientific Publishing, 2024, pp. 137–176. doi: 10.4018/979-8-3373-0669-8.ch004.
3. K. Kumar, U. Tyagi, S. K. Maity, and **G. Kumar**, "Next-Gen Energy Storage Devices: Carbon-Based Materials for Flexible Supercapacitors," in *Innovative Materials for Industrial Applications: Synthesis, Characterization and Evaluation*, 2024, pp. 135–168. doi: 10.4018/979-8-3693-7505-1.ch005.

PROF SHIPRA MITAL GUPTA

1. Shipra Mital Gupta, Nikita Gupta and S. K. Sharma "Advances in Carbon based Nanomaterials" in Nanotechnology: A quick guide to Materials and Technologies, eds. Divya Bajpai Tripathy, Anjali Gupta, Arvind Kumar Jain, Anuradha Mishra and Tokeer Ahmad, Bentham Science Publishers (2024), ISBN: 978-981-5256-78-9, eISBN: 978-981-5256-77-2. DOI: https://doi.org/10.2174/9789815256772124010 1.
2. Shipra Mital Gupta and S. K. Sharma "Green Solution for environmental sustainability" in Green Chemistry: A Path to Sustainable Development, eds. Lalit Prasad, Shafat Ahmad Khan, Arvind Jain, Rajender S Varma, Elsiever (2025), ISBN: 9780443219900. DOI: https://doi.org/10.1016/8978-0-443-21990-0.00017-1.

d) Any other Publications in APA Format

Patent(s):

1. **Bhardwaj Rashmi**, Datta Debabrata, Bhardwaj, Shivam (2024): IoT based Biomedical waste Disposer Device. Date of Indian Design Patent Publication: February 23, 2024. Journal Number 08/2024. Date of filling application December 20, 2023. Indian Design Patent Application No. 402694-001. Publisher: The Indian Patent Office, New Delhi, India.
2. **Prof Shipra Mital Gupta, Prof Surendra Kumar Shama, Shailja Pandey,** Patent Application No. 202411097846 dated 11/12/24 "Polyvinyl pyrrolidone functionalized silver nanoparticles based colorimetric sensor for manganese (II) detection", Inventors: Shipra Mital Gupta,Surendra Kumar Sharma, Shailja Pandey, Applicant:Guru Gobind Singh Indraprastha University

Papers in Conference

PROF SHIPRA MITAL GUPTA

1. "Colorimetric sensing of mercury (II) in aqueous samples using polyvinyl pyrrolidone capped silver nanoparticles" at International Conference on Renewable Energy and Sustainable Technology (ICREST-2024), Jamia Millia Islamia, New Delhi INDIA on July 4-8, 2024.
2. "Impact of Preparation Procedure on Thermo-Physical Properties of EG/Water (50:50) Based CNT Nanofluid" at International Conference on Renewable Energy and Sustainable Technology (ICREST-2024), Jamia Millia Islamia, New Delhi INDIA on July 4-8, 2024.

5. Seminars/ Workshops/ Conference/ Symposium attended by the Faculty:

S. No.	Name of faculty	Details of Workshop	Date &Duration	Place

1. **Bhardwaj, Rashmi**. (2025). Technical Lecture in12th Global Webinar on Applied Science, Engineering and Technologyand gave talk on "Artificial Intelligence Wavelet Conjunction Fractal Analysis of Water Quality" organized by Global Scientifc Guild.. (March 26, 2025, online)
2. **Bhardwaj, Rashmi**. (2025). Technical Lecture inInternational Women's Day week concluding ceremony at CSIR-NPL and gave talk on "Bridging the digital divide through gender lens" organized by CSIR, NPL, Delhi, India. (March 24, 2025)
3. **Bhardwaj, Rashmi**. (2025). Technical Lecture inNational Matheatics Day and gave talk on "Mathematics for AI and ML" organized by Department of Mathematics, GJUST, Hisar, India. (March 19, 2025)
4. **Bhardwaj, Rashmi**. (2025). Technical Lecture inDepartmental Festival "Origin 25" and gave talk on "Bridging the gap in STEM" organized by Department of Mathematics, Miranda House, University of Delhi, Delhi, India. (February 28, 2025)
5. **Bhardwaj, Rashmi**. (2025). Technical Lecture inResearch Colliquium and gave talk on "Fractals: Complexity analysis for real life challenges" organized by Department of Mathematics, SRMIST, KTR Camus, Chennai, India. (February 21, 2025)
6. **Bhardwaj, Rashmi**. (2025). Technical Lecture inMathematics Society and gave an Online Lecture titled "Nonlinear Dynamics Pathways for Mathematical Modeling" organized by Department of Mathematics, Saheed Bhagat Singh College, University of Delhi, Delhi, India. (February 17, 2025)
7. **Bhardwaj, Rashmi**. (2025). Technical Lecture inInspire: Workshop on Women Empowerment and Technical Excellenceand gave talk for Future Trends in quantum technologies organized by Aditya University, Surampalem, AP, India. (February 8, 2025)
8. **Bhardwaj, Rashmi**. (2025). Technical Lecture inInspire: Workshop on Women Empowerment and Technical Excellenceand gave talk on Applications of Mathematics in Artificial Intelligence and Machine Learning organized by Aditya University, Surampalem, AP, India. (February 7, 2025)
9. **Bhardwaj, Rashmi**. (2025). Keynote Speaker inNational Symposium on "Empowering Faculty: Advancing Excellence for NextGen Education" and gave talk on New Pedagogical Techniques: Kinesthetic learning, Game Based learning organized by Teaching Learning Centre, Sharda University, Greater Noida, UP, India. (January 30-February 5, 2025) (February 4, 2025)
10. **Bhardwaj, Rashmi**. (2024). Keynote Speaker inNational Mathematics Day and gave talk on Mathematical Modelling for Real Life Applications organized by Department of Mathematics, Acharya Institute of Technology, Bangalore. (December21-22, 2024)
11. **Bhardwaj, Rashmi**. (2024). Keynote Speaker in **One day** National Conference and Awareness Program "Mathematics in Daily Life" (National Mathematics Day 2024) and gave talk on The Ubiquity of Mathematics in Real Life organized by Division of Social Science, Faculty of Fisheries, Shere Kashmir University of Agriculture, Science and Technology, Srinarag, Kashmir. December 21, 2024, online
12. **Bhardwaj, Rashmi**. (2024). Keynote Speaker in **Global Scientific Guild Conference**: 11th Global Webinar on Applied Science, Engineering and Technologyand gave talk on Fractal and Bifurcation Pathways for Nonlinear Complexity organized by **Global Scientific Guild**. (November 26-27, 2024, online)

13. **Bhardwaj, Rashmi**. (2024). Keynote Speaker in **International Conference on Mathematical Sciences and Its Applications** and gave talk on Bifurcation and Fractal Pathways for Nonlinear Complexity organized by Sri Guru Tegh Bahdur Khalsa College, University of Delhi, Delhi. (October 15-17, 2024)
14. **Bhardwaj, Rashmi**. (2024). Keynote Speaker in **BlueBells School International Kalam Physical Symposium** and gave talk on Fractal Pathways to Real Life Application organized by BlueBells School, Delhi. (October 15, 2024)
15. **Bhardwaj, Rashmi**. (2024). Resource person in **Two-Days International Seminar on Digital Humanities and Redefining Research** and gave talk on Global Perspectives in Digital Research organized by GIET, Bhubneshwar, IAPPR, University of Uyo, Nigeria. (September 27-28, 2024, online)
16. Bhardwaj, Rashmi. (2024). Resource person in A Five-Day National Mathematics Workshop on Emerging Areas in Differential Equations: Theory, Modelling, Discretization & Numerical Solvers and gave talk on Complexity analysis of real life problems (I, II, III) organized by Government college Kullu. (September 16-20, 2024)
17. **Bhardwaj, Rashmi**. (2024). **Resource Person in UGC Sponsored** Refresher Course on **"Mathematics" o**rganised by Malaviya Mission Teacher Training Centre and gave talk on "Fractal analysis" at The Malaviya Mission Teacher Training Centre (MMTTC), GJ University, Hisar September 12, 2024, online.
18. **Bhardwaj, Rashmi**. (2024). **Resource Person in** FDP and gave talk on "Research Mehodology" on Research Pedagogy at The Malaviya Mission Teacher Training Centre (MMTTC), HNB Garhwal University September 9, 2024, online.
19. **Bhardwaj, Rashmi**. (2024). **Keynote Speaker in** One Day Internal Hackathon on the topic entitled Overview of Intellectual Property Rights in India: A Journey towards an Intellectual Revolution. Swami Vivekananda Institute of Technolgy, Bhubneshwar. August 30, 2024, online.
20. **Bhardwaj, Rashmi**. (2024). **Special Guest** to visit the Exhibition of Mathematics and Science Models. Indian Heritage School, Sector 23, Dwarka. August 8, 2024.
21. **Bhardwaj, Rashmi**. (2024). Keynote speaker in One-day International Symposium on " Recent Advances in Differential Equations and Applications"(ISRADEA-2024) and gave talk on Complexity analysis of Kinesiology movements held at Deshbandhu college, University of Delhi, Delhi. August 6, 2024.
22. **Bhardwaj, Rashmi**. (2024). Invited speaker in 12th International Conference on Applied Analysis and Mathematical Modeling (ICAAMM-2024) and will give talk on Bifurcation and Fractal Pathways for Nonlinear Complexity of COVID 19 to be held at Biruni University, Istanbul, Turkey. July 19-23, 2024, online.
23. **Bhardwaj, Rashmi**. (2024). Invited speaker in National Conference on Modeling Analysis and Simulation (MAS-2024) and will give talk on Exploratory Data Analysis Conjunct Models for COVID-19 Pandemic to be held at Department of Mathematics and Computing, IIT (ISM) Dhanbad. June 28-30, 2024. (June 29, 2024)
24. **Bhardwaj, Rashmi**. (2024). Invited speaker and Resource person in Workshop on Recent Development of Mathematical Sciences on Biology and Dynamical System with Fuzzy and Fractional Environment and gave talk on Chaotic Inference of Ferric Oxide (Fe_3O_4) Nanofluid flow held at Department of Mathematics, Mahadevananda Mahavidyalaya, Kolkatta. June 19-29, 2024. (June 19, 2024, online)
25. **Bhardwaj, Rashmi**. (2024). Resource person in 5-day Faculty Development Program (FDP) on Advances in Non-linear Dynamics: Methods and Applications (ANDMA 2024) and gave talk on Bifurcation and Fractal Pathways for Nonlinear Complexity held at Department of Mathematics, School of Advanced Sciences, VIT-AP University, Andhra Pradesh. June 11-15, 2024. (June 14, 2024, online)
26. **Bhardwaj, Rashmi**. (2024). Keynote speaker in National Conference on Ancient Mathematics and its Emerging Area (AMEA) 2024 and gave talk on Evolving Mathematics for Development of Technology held at Department of Mathematics, Faculty of Engineering, Teerthankar Mahavir University, Moradabad. April 24, 2024.
27. Sangwan, Vinita and **Bhardwaj, Rashmi** (2025). Regional Analysis of Influential Meterological Factors in Daily Precipitation Forecasting Using Machine Learningin International Conference on Signal Processing and Communication organised by Department of Electronics and Computer Engineering, JIIT, Noida, U.P., India. (February 20-22, 2025)
28. Inderjeet and **Bhardwaj, Rashmi** (2024). An Improved Class of Newton Raphson Method for the Numerical Simulation of Nonlinear Equationsin 2nd International Conference on Evolution in Pure and

Applied Mathematics (ICEPAM 2024) organized by Department of Mathematics, Akal University, Talwandi Sabo, Bathinda, Punjab, India. (November 20-22, 2024) (November 21, 2024, online)

29. Chaudhary, Kajal and **Bhardwaj, Rashmi** (2024). Analysing Various Techniques for Dimentionalty Reduction of EEG Signals in 2nd International Conference on Evolution in Pure and Applied Mathematics (ICEPAM 2024) organized by Department of Mathematics, Akal University, Talwandi Sabo, Bathinda, Punjab, India. (November 20-22, 2024) (November 22, 2024, online)
30. Sangwan, Vinita and **Bhardwaj, Rashmi** (2024). Maximum Overlap Discrete WaveletTransform for Enhanced Rainfall Prediction : A Machine Learning Approachin 2nd International Conference on Evolution in Pure and Applied Mathematics (ICEPAM 2024) organized by Department of Mathematics, Akal University, Talwandi Sabo, Bathinda, Punjab, India. (November 20-22, 2024) (November 22, 2024, online)
31. Lamba, Ekta and **Bhardwaj, Rashmi** (2024). Integrated Rough Set Theory for Robust Uncertainity Analysis in Dynamical Systems in 7th International Conference on Frontiers in Industrial and Applied Mathematics (FIMA 2024) organized by Department of Mathematics and Statistics, Central University of Punjab, Bathinda, Punjab. (November 13-14, 2024)
32. Chaudhary, Kajal and **Bhardwaj, Rashmi** (2024). Irrigation Water Demand by using Soil Moisture Data (SMAP) and CROPWAT Model under Varying Climate in 7th International Conference on Frontiers in Industrial and Applied Mathematics (FIMA 2024) organized by Department of Mathematics and Statistics, Central University of Punjab, Bathinda, Punjab. (November 13-14, 2024)
33. Sangwan, Vinita and **Bhardwaj, Rashmi** (2024). Prediction of Irrigation Water Quality Indices Based on Machine Learningin 7th International Conference on Frontiers in Industrial and Applied Mathematics (FIMA 2024) organized by Department of Mathematics and Statistics, Central University of Punjab, Bathinda, Punjab. (November 13-14, 2024)
34. Garg, Shanky and **Bhardwaj, Rashmi** (2024). MCDM approach for distributing medicines in Medical Stores in International Conference on Mathematical Sciences and Its Applicationsorganized by Sri Guru Tegh Bahdur Khalsa College, University of Delhi, Delhi. (October 15-17, 2024)
35. Inderjeet and **Bhardwaj, Rashmi** (2024). Enhancing Convergence: A Comparative Analysis of the Damped Newton- Raphson method along with classical Iterative methods in International Conference on Mathematical Sciences and Its Applicationsorganized by Sri Guru Tegh Bahdur Khalsa College, University of Delhi, Delhi. (October 15-17, 2024)
36. Sangwan, Vinita and **Bhardwaj, Rashmi** (2024). Multi-Scale Analysis of Air Quality Data: Integrating Statistical, Correlation and Wavelet Techniques in International Conference on Mathematical Sciences and Its Applicationsorganized by Sri Guru Tegh Bahdur Khalsa College, University of Delhi, Delhi. (October 15-17, 2024)
37. Chaudhary, Kajal and **Bhardwaj, Rashmi** (2024). Extrication of Irrigation Signals from SMAP Level-4 Soil Moisture Product using Fuzzy Logic organized by Sri Guru Tegh Bahdur Khalsa College, University of Delhi, Delhi. (October 15-17, 2024)
38. Kansal, Divisha and **Bhardwaj, Rashmi** (2024). Deep Neural Network based approach for detection of Malaria cell in International Conference on Mathematical Sciences and Its Applicationsorganized by Sri Guru Tegh Bahdur Khalsa College, University of Delhi, Delhi. (October 15-17, 2024)
39. Lamba, Ekta and **Bhardwaj, Rashmi** (2024). Integrating Rough Set Theory with Machine Learning Techniques for Enhanced Water Quality Prediction in International Conference on Mathematical Sciences and Its Applicationsorganized by Sri Guru Tegh Bahdur Khalsa College, University of Delhi, Delhi. (October 15-17, 2024)

6. Seminars/ Workshops/ Conference/ Symposium organized by the School/Centre

S.No.	Title of the Event/ Activity	Date/ Duration	No. of Participants	Details of the Event

7. Awards/ Prizes / Achievements/ Scholarship/ received by the faculty:

S. No.	Name of Faculty	Year	Details of Award
1	Dr. Satyabrata Mohapatra	2024	***MRSI Medal for 2024***, *Materials Research Society of India (MRSI) (2024)*
2	Dr. Satyabrata Mohapatra	2024	*Elected* ***Fellow of the Indian Chemical Society(FICS)***(2024)
3	Dr. Satyabrata Mohapatra	2024	***Outstanding Researcher Award***, GGS Indraprastha University (2024)
4	Dr. Satyabrata Mohapatra	2024	Figured as ***Highly Ranked Scholar*** in **World's Top 0.05% Scientists** in Nanostructure by *ScholarGPS* (2024).
5	Dr. Satyabrata Mohapatra	2024	Figured in ***Top Scholars*** with All India Rank # 2 and World Rank # 29 (*Nanostructure*), All India Rank # 10 and World Rank # 68 (*Optical Properties*) by *ScholarGPS* (2024).
6	Dr. Satyabrata Mohapatra	2024	Expert Member, ***Selection Committee***, ***INSPIRE Faculty Fellowship*** (IFF) Programme of DST (2024-2026).
7	Dr. Satyabrata Mohapatra	2024	Figured in ***World's Top 2% Scientists in Applied Physics***with Global Rank # 2829 and All India Rank # 86 by *Stanford University, USA* (2024)

1. **GGSIPU Indraprastha University on September 5, 2024 presented Appreciation Certificate for dedication, commitment, growth and development of the university for over two decades (25 years unwavering support) on Silver Jubilee Anniversary of the university.**
2. **GGSIPU Indraprastha University** on December 12, 2024 presented Appreciation Certificate for dedication, commitment, growth and development of the university for over two decades (20 years unwavering support) on Silver Jubilee Anniversary of the university.
3. **Dr. A. P. J. Abdul Kalam Nation Star Award 2024** as an Excellent Researcher. WELRED Organization, Registered Niti Aayog, Govt. of India.
4. **Rabindranath Tagore Hall of Fame Award** 2024 as an Excellent Researcher. WELRED Organization, Registered Niti Aayog, Govt. of India.

8. Projects/ Grants/ Consultancy received by the faculty:

S. No.	Name of Faculty	Title of the Project	Granting Agency	Period/ Duration	Amount (INR in Lakhs)

1	Prof. Rajesh Kumar:	Large area, patterned growth and engineering the electronic structure of MoS_2 thin films under ion irradiation for high-performance Gas Sensor and TFT device application.	DST-SERB-CRG, Govt. of India		50 Lakhs
2	Prof. Neeleshwar and Dr. Anjana Bagga	Disorder-induced enhancement of thermoelectric properties of a random array of SnSe quantum dots.	DST, Govt. of India		30 Lacs
3	Prof. Gulshan Kumar	Development of Carbonized Biomass Based Nanocomposite for Supercapacitor Application	RDC, GGSIPU	1 Year	2,00,00
4	Prof. Leena Khanna	Synthesis of novel Inclusion complexes of Beta-cyclodextrin with heterocyclic compounds	FRGS GGSIPU	2024-25	2 lacs
5	Prof. Anindya Datta	Development of metal-oxide nanoparticle decorated 2-D material-based hybrid for bioanalytical applications	STEER GGSIPU (CO-PI with Prof. Tapan Sarkar, USCT)	2024-25 (For three years)	4.6 Lacs in 2024-25
6	Prof. Yogesh K. Tyagi	Study on preparationand characterization of natural acid based aerosol forming composite for fire extinguishing applications _	GGSIPU/FRGS	1 year	2.0 lakh

9. Awards/ Prizes/ Achievements/ Scholarship/ Projects received by the students:

S. No.	Name of the Student	Programme	Semester/ Year	Details of Award
	Dr. Puja Seth			(Women Scientist) DST, Prof. Shruti Aggarwal (Mentor) 50 Lacs

10. Extra or co-curricularactivities like festivals/annual meets organized by theSchool/Centre:

S. No.	Name of Event	Date & Duration	Details of the Events

	1. National Science Day 2. National Space Day	1. 28th February 2024 (1 day) 2. 23rd August 2024 (1 day)	1. Annual Event 2. Took place as per Government instruction.

11. Any MOU (Academic/ R&D) signed by the School/Centre:

S. No.	Date of MOU	Details of MOU like collaborating institute etc.	Objectives of the MOU

12. Placement activities:

S.No.	Name of Company	Number of Students placed	Average Annual Package offered

13. Details of Research Scholars:-

a) Total number of Ph.D. awardee during the report period 2024-2025:

S. No.	Name of Scholar	Title of Ph.D.	Date of final Registration	Name of Supervisor	Date of Award of Degree
	Mansi	Molecular Docking Studies, Synthesis and Biological Evaluation of Benzopyrone Pharmacophores	01/12/2020	Prof Leena Khanna	11.4.2025
	Shilpa	Synthesis and Computational Studies of Novel Polycyclic Heterocycles for Biological Applications	01/12/2020	Prof Leena Khanna	11.4.2025
	Priyanka Yadav (Enrolment no. 03440890018), Awarded on	CNT Nanofluid-Preparation, Characterization and its Application in Heat Transfer	10/9/18	Prof Shipra Mital Gupta	11/03/25
	Shanky Garg	Multi-Farious Revenue Optimization	November 30, 2020	Prof Rashmi Bhardwaj	Thesis submitted January 2025
	Kunal	Cobalt based two-dimensional hybrid and template grown systems: Synthesis and Application	August, 2018	Prof. Anindya Datta	Thesis submitted July 2025

b) Total number of Ph.D. registered research scholars (ongoing):

Prof Rashmi Bhardwaj

a. Mr. Inderjeet Yadav December 21, 2021 (registered),
b. Ms. Kajal Chaudhry August 23, 2022 (registered)
c. Ms. Vinita Sangwan - August 23, 2022 (registered)
d. Ms. Divisha Kansal August 23, 2023 (registered).
e. Ms. Ekta Lamba August 23, 2023 (registered)
f. Ms Jyoti – July 19, 2024
g. Ms. Surbhi Sharma – February 2025

Prof. Anindya Datta

a. Kunal August 2018 (registered)
b. Shalini PandeyAugust 2021 (registered)
c. Anita 2024

14. Details of JRF-NET/GATE Qualified Students:

S. No.	Name of Student	Details of Test Qualified
1.	Saurav Kumar Maity	NET+GATE
2.	Krishna Kumar	GATE
3.	Nikita	NET+GATE
4.	Shagun Singh	GATE
5.	Kunal	GATE

15. Details of any official Journal/ Magazine published:

16. Industrial visits/ educational tours undertaken during the report period 2024-2025:

17. Any other significant achievement/activities by any student/faculty of the school during the period 01.04.2024 to 31.03.2025:

Date:

Name & Designation of Dean (USS)/
Head of the Department/ Director of Centre

Note: Information should be strictly for the period under report and in the formatprovided. Information not adhering to the format or incomplete is likely to beomitted from the report.