



**DR. ABHISHEK KUMAR GUPTA**  
**ASSOCIATE PROFESSOR**

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1-109/2-125, DEPARTMENT OF PHYSICS, MUKHYA BHAWAN,  
HARCOURT BUTLER TECHNICAL UNIVERSITY, KANPUR-02, UP

[https://scholar.google.co.in/citations?hl=en&user=PnWgOrMAAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.co.in/citations?hl=en&user=PnWgOrMAAAAJ&view_op=list_works&sortby=pubdate), Website: <https://sites.google.com/view/drakgupta/home>

## RESEARCH INTERESTS

- Energy Storage Materials and Devices: Batteries (Li, Na, Al, S and Mg batteries), Supercapacitors, Rechargeable Battery, Solid State Ionics, Nanoionics, Electrochemical Impedance Spectroscopy, Nanoscience, Nanotechnology, Nanocomposites, Nanohybrids
- Synthesis, Characterization, Fabrication/Design/Development of Electrochemical Energy Storage Devices, Materials for Solid Electrolytes, Cathode and Anode.
- Experimental Studies, Theoretical & Computational Studies.
- Quantum Chemical Technologies & Modelling of Energy Storage Devices
- Materials Science, Engineering & Technology: Experimental & Theoretical

## APPLICATIONS

- Energy Storage Devices,
- Li ion batteries, Na, Al, Mg, S Batteries,
- Supercapacitors,
- Fuel Cell,
- Solar Cells, DSSC
- Sensors and Biosensor
- Advance Electrochemical Energy Storage and Conversion Devices.

## BIOSKETCH

Dr. Abhishek Kumar Gupta is an Associate Professor in Physics at Harcourt Butler Technical University, Kanpur, India, specializing in Solid State Ionics and Materials Science. With over 16+ years of experience, his research focuses on materials for energy storage and conversion devices, including the experimental synthesis and characterization of materials for batteries, supercapacitors, solar cells, fuel cells, and sensors. He has published 50+ papers in reputed international journals, 10+ papers in national journal and conferences in India and abroad alongside 2 granted patents, and authored 7+ book chapters. He has supervised multiple Ph.D. students (3 awarded, and 5 ongoing) and over 23 Master/Postgraduate dissertations awarded under his supervision. Throughout his career, Dr. Gupta has received several awards and honors and is actively engaged in organizing conferences, delivering invited talks, and advancing computational and experimental techniques for energy applications.

## **EDUCATIONAL DETAILS**

UGC-Post Doc, Physics University of Delhi, New Delhi	2016
Ph. D., Physics Institute of Science, Banaras Hindu University Varanasi	2014
M.Sc., Physics DDU Gorakhpur University, Gorakhpur	2007

## **PROFESSIONAL AND ACADEMICS EXPERIENCES**

Associate Professor (Level 13-A2, Regular) Department of Physics, Harcourt Butler Technical University, Kanpur (Uttar Pradesh Government Technical University)	2023-Present
Assistant Professor (Senior Scale, Regular) Department of Physics and Material Sciences Madan Mohan Malaviya University of Technology, Gorakhpur (Autonomous University, Uttar Pradesh Government)	2020-2023
Assistant Professor (Level-10, Regular) Department of Physics and Material Sciences, Madan Mohan Malaviya University of Technology, Gorakhpur (Autonomous University, Uttar Pradesh Government)	2016-2020
Assistant Professor (Regular), Department of Physics, Magadh University, Bodh Gaya, Bihar (Bihar Public Service Commission, Govt. of Bihar)	2015 Selected
Assistant Professor, (UGC-DSK) Department of Physics & Astrophysics, University of Delhi, Delhi	2015-2016
Assistant Professor, Level-10 Department of Physics, Suraj College of Engineering & Technology, Mahendragarh, Haryana	2015
Faculty (Honorarium) Department of Physics, Banaras Hindu University, Varanasi-221005	2011-2012

## **AWARDS & RECOGNITIONS**

UGC-Dr. D.S. Kothari, UGC New Delhi	2015
S.R.F., CSIR, New Delhi	2013

Young Scientists Award, NCSSI-10, IIT Kharagpur	2013
UGC-RFSMS	2013
ITS, Sydney, Australia, SERB-DST, Govt of India	2011
Most Active & Interacting Participant Award, Physics, BHU	2011
S.R.F.	2010
J.E.S.T., All India Rank-69	2009
J.R.F.	2008
CSIR-NET, Physics, Five Times	2008- Onwards
G.A.T.E., Physical Science, Two Times	2008- Onwards

## RESEARCH

### Ph.D. SUPERVISED/GUIDED

Ph.D. Awarded	Three (3)
Pre-Ph.D. Defended/Thesis Submitted	Two (2)
Ph.D. Ongoing	Five (4)
PG Dissertation Supervised/Guided & Awarded	Twenty- Three (23)
1. Sarvesh Kumar Gupta (20180078004) Density Functional Theory and Experimental Studies on Physicochemical Properties of Imidazolium Ionic Liquid and Inorganic Matrix Based Ionogels	Awarded 2022
2. Shivani Gupta (2018078003), Density-Functional Theory Studies of Interaction of Alkali Metal Salts and Plasticizers with Polyethylene Oxide PEO	Awarded 2022
3. Ramesh Kumar Arya (2019078003) Theoretical Studies on Structural, Electronic and Thermal Properties of Lithium bis(trifluoro-methane-sulfonyl) imide Based Polymer Electrolytes.	Awarded 2023
4. Mayank Shrivastav (2021078002) Computational Study of Impact of Doping and Crystallographic Orientation on Ion Transport in Lithium Battery Materials	Pre-Ph.D. Defended 2024
5. Abhay Kumar Srivastava (2021078004) Thermoelastic properties of solid by equation of state	Pre-Ph.D. Defended 2024

6. Shweta Agrahari (2022078002) Theoretical and Experimental Investigation of Transport Mechanism and Interfacial Behavior in Polymer Electrolyte based Electrochemical Devices	2022- Ongoing
7. Shivang Trivedi (230334002) Quantum Technologies in Next-Generation Rechargeable Batteries	2024- Ongoing
8. Ankita Pandey	2025- Ongoing
9. Karan Upadhyay, J.R.A.	2024- Ongoing

## **PROJECTS**

Designing Next-Generation Solid Electrolytes with Ionic Liquids for Safer and Higher-Performance Batteries (Sanctioned No. CST/D-831/Project ID: 3993), 13.36L	P.I., 2024- Ongoing
Development of ion conducting solid electrolytes for energy storage supercapacitor application, Research Initiation Grant, TEQIP- III, 2.00L	P.I., 2020 Completed

## **PATENTS**

Ant Colony Optimizer for Profitable and Carbon Free Hydrogen Blended Gas Pipelines, APPLICATION NUMBER-202411069716, Date of Filing-15/09/2024, Publication Date-04/10/2024, Patent Type-NATIONAL, Investigators- Dr. Adarsh Kumar Arya, Ms. Devanshi Srivastava, Dr. Santosh Kumar, Dr. Manoj Kumar, Dr. Abhishek Kumar Gupta	2024
Porphyrin Containing Covalent Organic Framework and Method of Synthesis Thereof, APPLICATION NUMBER-202111010716, Publication Date-18/11/2022, Patent Type-NATIONAL No.- 46/2022, Year of Patent Filing-2021, Investigators- ATUL P. SINGH. 2. RAJESH K. YADAV. 3. CHANDANI SINGH. 4. POOJA SINGH. 5. SURABHI CHAUBEY. 6. ABHISHEK K. GUPTA	2022

## **POSTGRADUATE/MASTER DISSERTATIONS SUPERVISED/GUIDED**

P.G. Dissertation Awarded				Twenty- Three: 23
1.	Jyoti Singh	Dr. Abhishek Kr. Gupta	Synthesis of characterization of polymer gel electrolyte for Li ion batteries	2018-20
2.	Vinay Shukla	Dr. Abhishek Kr. Gupta	Study of electrical and structural properties of Na ion based solid electrolytes	2018-20
3.	Om Hari Dubey	Dr. Abhishek Kr. Gupta	Development and optical characterization of DSSC	2018-20
4.	Amul Kumar Srivastava	Dr. Abhishek Kr. Gupta	Modelling of EDLC	2018-20
5.	Rishab Raj Jaiswal	Dr. Abhishek Kr. Gupta	Simulation, modeling and Self-discharge characterization of energy storage devices	2018-20
6.	Aishwarya Raj Srivastava (2019073002)	Dr. Abhishek Kr. Gupta	“Modelling the Simulation of Hybrid Energy Storage System integrated with Photovoltaic System using MATLAB/ SIMULINK”	2019-21

7.	Ankita Pandey (2019073005)	Dr. Abhishek Kr. Gupta	"Ab initio study of AGAR-AGAR biopolymer-based electrolyte"	2019-21
8.	Divya Prabha (2019073007)	Dr. Abhishek Kr. Gupta	"Studies on energy storage performance of supercapacitor using MATLAB/ Simulink"	2019-21
9.	Km. Karishma (2019073011)	Dr. Abhishek Kr. Gupta	"Enhancement in efficiency on optimization in layers of perovskite solar cell by using simulation technique"	2019-21
10.	Nirupma Yadav (2019073016)	Dr. Abhishek Kr. Gupta	"Theoretical investigation on Di-tetrabutylammonium cis-bis (isothiocyanato) bis (2, 2'-bipyridyl-4, 4'-dicarboxylato) ruthenium (II) (N719) based dye for dye sensitized solar cell applications"	2019-21
11.	Sakshi Tiwari (2019073021)	Dr. Abhishek Kr. Gupta	"Computational studies on molecular structure of binary mixtures of organic electrolytes for sodium ion battery"	2020-22
12.	Anamika, 2020073004	Dr. Abhishek Kr. Gupta	Ab initio study of adsorption of ionic liquid on the surface of graphene sheets: Effects of cations and anions	2020-22
13.	Priya Gupta, 2020073010	Dr. Abhishek Kr. Gupta	DFT study of Na-ion conducting biopolymer electrolyte based on Agar-Agar polysaccharide agarose	2020-22
14.	Roly Singh, 2020073011	Dr. Abhishek Kr. Gupta	Simulation-Based Investigation on the Impact of Absorber Layer Thickness and Defect Density on the Performance of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cell Using SCAPS-1D	2020-22
15.	Vijay Kirti Ratna, 2020073014	Dr. Abhishek Kr. Gupta	Numerical modeling of CZTS based thin-film solar cell via a non-toxic hybrid buffer layer	2020-22
16.	Amrita Gupta	Dr. Abhishek Kr. Gupta	Theoretical optimization of tetracyanoethylene-GO and polyethylene oxide-GO based polymer nanocomposites	2020-22
17.	Deepmala	Dr. Abhishek Kr. Gupta	Theoretical design and optimization of halide absorber layer (CH <sub>3</sub> NH <sub>3</sub> GeI <sub>3</sub> ) based thin film solar cell by SCAPS- 1D	2021-23
18.	Gaurav Pandey	Dr. Abhishek Kr. Gupta	Structural and Transport properties of alkaline and transition elements co-doped Lanthanum Molybdate	2021-23
19.	Mamta Singh	Dr. Abhishek Kr. Gupta	Theoretical analysis of vanadium-based cathode material useful for lithium-ion battery	2021-23
20.	Priyanshu Srivastava	Dr. Abhishek Kr. Gupta	DFT study of double doped La <sub>2</sub> Mo <sub>2</sub> O <sub>9</sub> as electrolyte material for solid oxide fuel cell	2021-23
21.	Shyam Ji Srivastava	Dr. Abhishek Kr. Gupta	Effect of Nano-fillers on Some physical properties of PEO based Polymer Electrolyte	2021-23
22.	Sonu Kumar	Dr. Abhishek Kr. Gupta	First Principle study of Na <sub>3</sub> V <sub>2</sub> O <sub>2</sub> (PO <sub>4</sub> ) <sub>2</sub> F cathode material for rechargeable Sodium ion battery	2021-23
23.	Vaibhav Pandey	Dr. Abhishek Kr. Gupta	Numerical Simulation and Optimization of Methylammonium lead iodide (CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> ) Perovskite with Inorganic HTL Using SCAPS-1D	2021-23

## **ADMINISTRATIVE POSITION/RESPONSIBILITIES:**

Convenor, Print & Social-Media, HBTU	2024
Faculty-in-charge, P.G. Physics Laboratory, HBTU	2024
Program Officer, NSS, MMMUT	2016-2023
Program Officer, Chess, Carrom, Skating/Billiards, Sport Sub-council, MMMUT	2023
O/c of Basketball, Sport Sub-council, MMMUT	2016-20
Nodal officer, NAAC, MMMUT	2020-23
Member Secretary, Departmental Internal Quality Assurance Cell (IQAC), PMSD	2019-23
Convenor, Departmental Activities (Teachers and Students)	2021-23
Post Graduate Studies, Convenor, PMSD, MMMUT	2018-2021
Coordinator, Virtual Lab, PMSD, MMMUT	2019-2023
Convenor, DPR, APR, MPR and Academic Proposals	2016-23
Coordinator Physics Program, PMSD, MMMUT	2017-22
Coordinator NBA, Course File & CO-PO	2017-22
Warden, Kalpana Bhawan, Girls Hostel, MMMUT	2021-2023
Warden, Kasturba Bhawan, Girls Hostel, MMMUT	2020-2021
Warden, Vishweshraiya Bhawan, Boys Hostel, MMMUT	2016-2020
Member, Cultural Sub Council, MMMUT	2019-20
Faculty in charge, Day Scholar Club	2021-22
Faculty in charge, Resident Scholar Club, MMMUT	2016-23
O/c of Basketball, Sport Sub council, CSA	2016-20
Induction Training Program Officer & Member, TEQIP, MMMUT	2017-23
O/c Physics-Laboratory, PMSD	2018-23

O/c DPR, APR, NBA, NIRF, IT Ranking	2018-23
Member, Board of Studies, PMSD	2016-23
Member, Departmental Advisory Committee, PMSD	2016-23
Develop New Ordinances, Curricula, Syllabus and Courses U.G & P.G., PMSD	2018-23
Co-convenor, Induction Program for Newly Admitted Students (IPNS), MMMUT	2019-21
Convenor, Induction Program for Newly Admitted Students (IPNS), MMMUT	2018-19
Joint Organizing Secretary, SMDST-19	2019
Joint Coordinator, "Hands on Training cum workshop" for scientist and Engineers	2017
Setting of Physics Lab, PMSD	2017-22

## **TEACHING ENGAGEMENTS: UG/PG**

Quantum Mechanics (NPH-505 & MPM-103)
Physics at Nano Scale (PHYS-511)
Nanomaterials Lab (PHYS-512)
Electrodynamics and Electromagnetic Theory (MPM-107)
Advance Quantum Mechanics (MPM-201)
Engineering Physics (NPH-101 & 102)
Engineering Physics-I (BSM-127)
Engineering Physics-II (BSM-177)

## **RESEARCH PUBLICATIONS**

SCI/ SCIE/ UGC CARE	Sixty (60)
Book Chapters	Seven (07)
International Conference Proceedings	Five (05)
International & National Conferences Presented	Thirty five (35)
National Journal Publications	Five (05)

## **PUBLICATIONS DETAILS**

**Total 65, Citations: 695, h-index: 13, i10-index: 12**

1. Investigation on crystallographic orientation dependent ion transportation in Li<sub>3</sub>YBr<sub>6</sub> superionic conductor for lithium-ion battery (2024), Mayank Shriwastav, Abhishek Kumar Gupta, D.K. Dwivedi, <https://doi.org/10.1016/j.jpccs.2024.112146>, *Journal of Physics and Chemistry of Solids*, 2024, Volume 193, 112146, SCIE, ISSN 0022-3697, IF-4.3, 2024 Corresponding Author
2. The Role of Crystallographic Orientation on Surface Properties and Ion Transport in Lithium Germanate (Li<sub>2</sub>GeO<sub>3</sub>) Anodes: A Computational Approach, Mayank Shriwastav, Abhishek Kumar Gupta, D.K. Dwivedi, *Journal of Solid State Chemistry*, 340 (2024) 125032, Publisher-Elsevier, ISSN 0022-4596, <https://doi.org/10.1016/j.jssc.2024.125032>, IF-3.2, Corresponding Author, 2024.
3. Role of Site-Specific Doping in Stabilizing High-Nickel Cathodes for High-Performance Lithium-Ion Batteries, Authors, Mayank Shriwastav, Abhishek Kumar Gupta, D.K. Dwivedi, *Journal of Solid State Chemistry*, Volume-339, Publisher-Elsevier, <https://doi.org/10.1016/j.jssc.2024.124959>, Volume 339, 2024, 124959, ISSN 0022-4596, IF-3.2, SCIE, Corresponding Author, 2024
4. Optical properties of graphene quantum dots modified boron-doped graphitic carbon nitride for enhanced photocatalytic C single bond H arylation under solar light, Corresponding authors, Diamond and Related Materials, 2025, 111957, Sanjana Kumari, Atul Pratap Singh, Archana Takur, Abhishek Kumar Gupta, Khalid M. Alotaibi, Krishana Kumar Yadav, Rajesh K. Yadav, Jin OoK Baeg, Renu Devi, <https://doi.org/10.1016/j.diamond.2025.111957>
5. Transforming CO<sub>2</sub> into formic acid by integrated solar-driven catalyst-enzyme coupled artificial photosynthetic system, Kanchan Sharma, Ankita Singh, Rajesh Kumar Yadav, Shaifali Mishra, Rehana Shahin, Atul, Abhishek Kumar Gupta, Krishna Kumar Yadav, Chandani Singh, *Photochemistry and Photobiology*, Wiley, SCI, Corresponding Author, 2025, Volume 101, Issue 1, I.F. 2.6, <https://doi.org/10.1111/php.14069>
6. Synthesis Of Optical Active Light Harvesting Graphene-COFs Hybrid Materials For Artificial Photosynthesis: Efficient Solar-To-Chemical Energy Conversion, Corresponding authors, Shukla, R.K., Yadav, R.K., Gole, V.L. et al., *Journal of Optics, J Opt* (2024). <https://doi.org/10.1007/s12596-024-02331-w>, 2024
7. Sun-powered synthesis: harnessing multiwall carbon nanotube-EB photocatalytic magic in a unified photocatalytic-biocatalytic system for solar-driven L-glutamate production from α-ketoglutarate., Abhishek Mishra; Shaifali Mishra; Rajesh Yadav, Rehana Shahin; Satyam Singh; Abhishek Kumar Gupta; Rajat Singhal; Jin OoK Baeg; Krishna Kumar Yadav; Gamal A. El-Hiti; Navneet Kumar Gupta, *Carbon Letters*, SCIE, *Carbon Lett.* (2024). <https://doi.org/10.1007/s42823-024-00780-8>, IF-5.5, ISSN 2233-4998
8. DFT analysis of structural and optoelectronic properties of (PEO)<sub>8</sub>-LiFSI complexes, **Shweta Agrahari, Satya Pal Singh, & Abhishek Kumar Gupta**, *Ionics* (2025). <https://doi.org/10.1007/s11581-024-05939-x>, Published 17 January 2025



9. Study on the electronics and structural properties of transition metal-doped La<sub>2</sub>Mo<sub>2</sub>O<sub>9</sub>, Journal of Molecular Modeling, Priyanshi Gaur, Brijesh Kumar Pandey, Mayank Shrivastav, Abhishek Kumar Gupta, Priyanshu Srivastava, <https://doi.org/10.1007/s00894-024-05888-2>, SCI, **Impact Factor-2.2**, ISSN: 0948-5023, 16102940, Volume 30, 2024
- 
10. Tailoring of the Electrochemical Stability and Dielectric Behaviour of Inorganic Matrix- Based Ionogels  
Sarvesh Kumar Gupta, **Abhishek Kumar Gupta**  
Physica Scripta, Phys. Scr., Vol 97 (2022) 065812, IOP SCIENCE, IOP Publishing,  
<https://doi.org/10.1088/1402-4896/ac6d20>  
ISSN: 1402-4896 (print); 1402-4896 (web) , **Impact Factor: 2.89**
- 
11. Experimental and Computational Study of Lithium Salt/Plastic Crystal Assisted Ionogels  
Sarvesh Kumar Gupta, **Abhishek Kumar Gupta**  
*Arabian Journal for Science and Engineering*, Vol 46, No. 7 (2020): p. 935-947.  
ISSN: 2191-4281, **Impact Factor: 2.834**
- 
12. Insight into structural, electronic, and chemical bonding properties of PEO-PEG-LiI polymer electrolyte: A first-principles investigation  
Shivani Gupta, **Abhishek Kumar Gupta** and B. K. Pandey  
*Computational and Theoretical Chemistry* (2022), Volume 1211, 113667.  
ISSN: 2210-271X, **Impact Factor: 2.26**
- 
13. Influence of polyethylene glycol plasticizer on the structural and electronic properties of PEO-NaI complex: a density functional study  
Shivani Gupta, **Abhishek Kumar Gupta**, B. K. Pandey and Mohan L. Verma,  
*Journal of Molecular Modeling*, Vol. 27, No. 6 (2021) p.1-11.  
EISSN: 0948-5023, **Impact Factor: 2.1**
- 
14. The effect of nitrogen-rich ionic liquid [EMIMDCA] on the electronic structure of solid polymer electrolyte (PEO-LiTFSI)  
Ramesh Kumar Arya and **Abhishek Kumar Gupta**  
*Journal of Molecular Modeling* Vol.28, 363(2022)  
ISSN: 0948-5023, **Impact Factor: 2.172**
- 
15. Role of reduced precursor and solvolytic reagent molar ratio on preparation and properties of ionogel  
**Abhishek Kumar Gupta**, Yogendra Lal Verma, Manish Pratap Singh and Rajendra Kumar Singh  
*Journal of Solid State Chemistry*, Vol. 242, No. 1 (2016): p. 29–37.  
ISSN: 0022-4596, **Impact Factor: 3.98**
- 
16. Role of ionic liquid [BMIMPF<sub>6</sub>] in modifying the crystallization kinetics behavior of polymer electrolyte PEO-LiClO<sub>4</sub>  
S.K. Chaurasia, Shalu, **Abhishek Kumar Gupta**, Y.L. Verma, V. K. Singh, A. K. Tripathi, A. L. Saroj, and R. K. Singh  
*RSC Advances*, Vol. 5, No. 11 (2015): p. 8263-8277.  
ISSN: 2046-2069, **Impact Factor: 3.361**
- 
17. Studies on structural, thermal and AC conductivity scaling of PEO-LiPF<sub>6</sub> polymer electrolyte with added ionic liquid [BMIMPF<sub>6</sub>]  
S. K. Chaurasia, A. L. Saroj, Shalu, V. K. Singh, A. K. Tripathi, **Abhishek Kumar Gupta**, Y. L. Verma and R. K. Singh  
*AIP Advances*, Vol. 5, No. 7 (2015): p. 077178  
ISSN: 2158-3226, **Impact Factor: 1.548**
- 
18. Studies on an ionic liquid confined in silica nanopores: Change in T<sub>g</sub> and evidence of organic-inorganic linkage at the pore wall surface  
**Abhishek Kumar Gupta**, Yogendra Lal Verma, Rajendra Kumar Singh, and Suresh Chandra  
*Journal of Physical Chemistry C*, Vol. 118, No. 3 (2014): p. 1530–1539.  
ISSN 1932-7447, **Impact Factor: 4.126**
- 
19. Crystallization kinetics behavior of ionic liquid [EMIM][BF<sub>4</sub>] confined in mesoporous silica matrices  
**Abhishek Kumar Gupta**, Rajendra Kumar Singh and Suresh Chandra  
*RSC Advances*, Vol. 4, No. 42 (2014): p. 22277-22287.  
ISSN: 2046-2069, **Impact Factor: 3.361**

20. Preparation and characterization of ionic liquid confined hybrid porous silica derived from ultrasonic assisted non-hydrolytic sol-gel process  
Yogendra Lal Verma, **Abhishek Kumar Gupta**, Rajendra Kumar Singh and Suresh Chandra  
*Microporous and Mesoporous Materials*, Vol. 195 (2014): p. 143–153.  
ISSN: 1387-1811, **Impact Factor: 5.445**
- 
21. Viscoelastic, Surface and Volumetric Properties of Ionic Liquids [BMIM][OCSO<sub>4</sub>], [BMIM][PF<sub>6</sub>] and [EMIM][MeSO<sub>3</sub>]  
M. P. Singh, S. K. Mandal, Y. L. Verma, **Abhishek Kumar Gupta**, R. K. Singh and S. Chandra  
*Journal of Chemical & Engineering Data*, Vol. 59, No. 8 (2014): p. 2349–2359.  
ISSN: 0021-9568, [I.F.- 2.154], **Impact Factor: 2.694**
- 
22. Changes in Dynamical Behavior of Ionic Liquid in Silica Nano-Pores  
Manish Pratap Singh, Yogendra Lal Verma, **Abhishek Kumar Gupta**, Rajendra Kumar Singh and Suresh Chandra  
*Ionics*, Vol. 20 (2014): p. 507-516.  
ISSN: 0947-7047, **Impact Factor: 2.817**
- 
23. Studies on mesoporous silica ionogels prepared by sol-gel method at different gelation temperatures  
**Abhishek Kumar Gupta**, Rajendra Kumar Singh and Suresh Chandra  
*RSC Advances*, Vol. 3, No. 33 (2013): p. 13869-13877.  
ISSN: 2046-2069, **Impact Factor: 3.361**
- 
24. Low density ionogels obtained by rapid gellification of tetraethyl orthosilane assisted by ionic liquids  
**Abhishek Kumar Gupta**, Manish Pratap Singh, Rajendra Kumar Singh and Suresh Chandra  
*Dalton Transactions*, Vol. 41, No. 20 (2012): p. 6263-6271.  
ISSN 1477-9226, **Impact Factor: 4.390**
- 
25. Electronic, Vibrational, and Structural Study of Polysaccharide Agar-Agar Biopolymer  
Ankita Pandey, **Abhishek Kumar Gupta**, Shivani Gupta, Sarvesh Kumar Gupta, Rajesh Kumar Yadav  
*Nano Hybrids and Composites*, Vol. 33 (2021), pp 35-46  
ISSN: 2297-3400, **Impact Factor: NA**
- 
26. Electronic, Thermal, and Vibrational Properties of SiO<sub>2</sub>/SCN System: A Combined Density Functional Theory and Experimental Study  
Sarvesh Kumar Gupta, **Abhishek Kumar Gupta**  
*Russian Journal of Physical Chemistry A*, Vol. 96, No. 3 (2022): p. 596–608.  
ISSN: 0036-0244, **Impact Factor: 0.79**
- 
27. DFT Study on Na-ion conducting solid biopolymer electrolytes based on Agar-Agar and NaPF<sub>6</sub> for sodium-ion batteries.  
Priya Gupta, **Abhishek Kumar Gupta**, Sarvesh Kumar Gupta, Shivani Gupta, Mayank Shrivastav and Rajesh Kumar Yadav  
*Nano Hybrids and Composites*, Vol.40 (2023), p. 65-78
- 
28. Numerical Simulation and Optimization of Lead-Based Perovskite Solar Cell with Inorganic HTL Using SCAPS-1D  
Vaibhav Pandey, **Abhishek Kumar Gupta** and Mayank Shrivastav  
*Journal of Optics*, Vol 52, (2023)  
ISSN: 09728821, **Impact Factor: 1.4**
- 
29. First-principle study on ionic pair dissociation in PEO-PVP-NaClO<sub>4</sub> blend for solid polymer electrolyte  
Shivani Gupta, **Abhishek Kumar Gupta** and B. K. Pandey  
*Polymer Bulletin* (2021): p.1-20.  
EISSN:1436-2449, **Impact Factor: 2.870**
- 
30. Explore the fascinating realm of comparing metal melting curves by applying the equation of state and Lindemann's law, Abhay P. Srivastava, Brijesh K. Pandey, Abhishek K. Gupta, [Computational Condensed Matter](https://doi.org/10.1016/j.cocom.2024.e00952), <https://doi.org/10.1016/j.cocom.2024.e00952>, Volume 40, e00952, 2024, Elsevier, SCIE, IF-2.6, ISSN 2352-2143, 2024
- 
31. Comparing Melting Curves of Metals Using the Equation of State and Lindemann's Law, Srivastava, A.P., Pandey, B.K., Gupta, A.K. *et al.*, *Iranian Journal of Science*, *Iran J Sci* (2024). <https://doi.org/10.1007/s40995-024-01748-z>, 2024

32. Calculation of the melting curve of metals using equations of state and Lindemann's law, Abhay P. Srivastava, Brijesh K. Pandey, Abhishek Kumar Gupta, Computational Condensed Matter, Volume 42, March 2025, e00986, <https://doi.org/10.1016/j.cocom.2024.e00986>, 2024
- 
33. Theoretical Studies of physical, chemical, and vibrational properties of various imidazolium-based ionic liquids Sarvesh Kumar Gupta, **Abhishek Kumar Gupta**, Rajesh Kumar Yadav *Acta Physica Polonica A*, Vol. 140, No. 5 (2021): p. 400-406. ISSN: 1898-794X, **Impact Factor: 0.740**
- 
34. Structural, electronic, and thermal studies of Poly(ethylene oxide) based solid-state polymer Electrolyte Ramesh Kumar Arya and **Abhishek Kumar Gupta** *International Journal of Material Research* Vol.114 (2023), ISSN: 18625282, **Impact Factor; 0.678**
- 
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Aishwarya Raj Srivastava, **Abhishek Kumar Gupta**, Sarvesh Kumar Gupta, Amul Kumar Srivastav, Rajesh Kumar Yadav  
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**Abhishek Kumar Gupta**, Rishabh Raj Jaiswal, Sarvesh Kumar Gupta, Ramesh Kumar Arya, Amul Kumar Srivastav  
*Journal of Microelectronics and Solid-State Devices*, Vol. 8, No. 1 (2021): p. 14-22.  
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Jyoti Singh, **Abhishek Kumar Gupta**, Shivani Gupta, Sarvesh Kumar Gupta, Ramesh Kumar Arya, Amarjeet Yadav  
*Journal of Nanoscience, Nanoengineering & Application*, Volume 11, No. 3 (2021): p. 18-25.  
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Nirupma Yadav, **Abhishek Kumar Gupta**, Sarvesh Kumar Gupta, Omhari Dubey  
*Nano Trends: A Journal of Nanotechnology and Its Applications*, Volume 23, No. 2 (2021): p. 1-11.  
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Km. Karishma, **Abhishek Kumar Gupta**, Omhari Dubey, Sarvesh Kumar Gupta  
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Sujeet Kumar Chaurasia, **Abhishek Kumar Gupta**, Sarvesh Kumar Gupta, Shivani Gupta, Pramod Kumar, Manish Pratap Singh  
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Print ISBN-978-981-16-5970-6, Online ISBN-978-981-16-5971-3  
Editors: Krupanidhi, S.B., Gupta, V., Sharma, A., Kumar Singh, A. (Eds.),
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Divya Prabha, **Abhishek Kumar Gupta**, Shivani Gupta, Sarvesh Kumar Gupta, Jyoti Singh, Rajesh Kumar Yadav  
*Advances in Functional Materials*, Springer Nature Publisher  
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Print ISBN-978-981-16-5970-6, Online ISBN-978-981-16-5971-3  
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Sarvesh Kumar Gupta, Shivani gupta, Satyam Singh, Rajesh Kumar Yadav, Abhishek Kumar Gupta  
Complex and Composite Metal Oxides for Gas,  $V_{oc}$  and Humidity Sensors, Elsevier  
Edited By; Bal Chandra Yadav, Pragati Kumar



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*Advanced Materials and Nano Systems*, 2022, 53-66, **Bentham Science Publishers**  
**Bentham Science Publishers Pte. Ltd., 80 Robinson Road #02-00, Singapore 068898, Singapore**  
DOI: 10.2174/9789815050745122010006  
Edited By: Dibya Prakash Rai, Department of Physics, Pachhunga University College, Mizoram University, Aizawl, 796001, India
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58. Shining Light on Innovation: In-Situ Crafted Polymeric Frameworks Unveil Spectacular Optical Prowess for Enhanced Photocatalysis, Rajat Singhal; Rajesh Yadav; Satyam Singh; Rehana Shahin; Shaifali Mishra; **Abhishek K. Gupta**; Ripsa Rani Nayak; Navneet K. Gupta; Jin-Ook Baeg; Gamal A. El-Hiti; Krishna Kumar Yadav, **Journal of Optics**, 2024, **Accepted**
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Surabhi Chaubey, Chandani Singh, Pooja Singh, Satyam Singh, Yu-Jin Jeong, Rajesh K. Yadav, **Abhishek K. Gupta**, Atul P. Singh, Mukesh Kumar, Tae W. Kim  
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Shivani Gupta, R. K. Yadav, **Abhishek Kumar Gupta**, B. Yadav, A. Singh, and B. K. Pandey  
*Photochemistry and Photobiology*, Vol. 97, No. 6 (2021): p.1498-1506.  
ISSN: 1751-1097, **Impact Factor: 3.421**
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Sarvesh Kumar Gupta, **Abhishek Kumar Gupta**, Rajesh Kumar Yadav, Ajeet Singh, B. C. Yadav  
*Photochemistry and photobiology*, Vol. 98, No. 1 (2022): p.160-168.  
ISSN:1751-1097, **Impact Factor: 3.421**
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62. Eosin-Y and sulfur-codoped g-C<sub>3</sub>N<sub>4</sub> composite for photocatalytic applications: the regeneration of NADH/NADPH and the oxidation of sulfide to sulfoxide, Pooja Singh, Rajesh Kumar Yadav, Krishna Kumar, **Abhishek Kumar Gupta**, Kuldeep Kumar, B. C. Yadav, Atul P. Singh,  
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*Journal of Chinese Chemical Society*, Wiley-VCH GmbH, Weinheim, 68 (8), 2021, 1435-1444, ISSN:2192-6549, **Impact factor:1.967**
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64. Highly Efficient In-situ Sulfur Doped Graphitic Carbon Nitride Nanoplates as an Artificial Photosynthetic System for NADH Regeneration  
Sarvesh Kumar Gupta, **Abhishek Kumar Gupta**, Rajesh Kumar Yadav, Ajeet Singh, B. C. Yadav  
*Vietnam Journal of Chemistry*, Vol. 59, No. 5 (2021), p.590-598.  
ISSN:2572-8288, **Impact Factor: NA**
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65. Selective aerobic coupling of amines to imines using solar spectrum-responsive flower-like N-en-graphene quantum dots (GQDs) decorated with 2, 4-dinitrophenylhydrazine (PH) as a photocatalyst.  
Sotirios Baskoutas Neetesh Kumar, Rajesh K. Yadav, Ahmad Umar, Ahmed A. Ibrahim, Satyam Singh, Rehana Shahin, Atul P. Singh, **Abhishek K. Gupta**, Navneet K. Gupta, Jin Ook Baeg g, Dilip K. Dwivedi  
*Chemosphere*, Volume 341 (2023), 139697  
ISSN: 0045 -6535 **Impact Factor: 8.943**
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## WEBSITES & SOCIAL LINKS

PHYSICS,  
HBTU



<https://hbtu.ac.in/physics-department/>,  
<https://hbtu.ac.in/wp-content/uploads/2024/11/CVDr.-Abhishek-Kr-Gupta-01-02-24.pdf>

Nanoionics  
and  
Energy  
Storage Lab,  
HBTU Kanpur



<https://sites.google.com/view/drakgupta/university-departments-responsibilities?authuser=0>

Google  
Scholar



[https://scholar.google.co.in/citations?hl=en&user=PnWgOrMAAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.co.in/citations?hl=en&user=PnWgOrMAAAAJ&view_op=list_works&sortby=pubdate)

LinkedIn



<https://www.linkedin.com/in/dr-abhishek-kumar-gupta-a9168287/>

Research  
Gate



<https://www.researchgate.net/profile/Dr-Abhishek-Gupta/research>

Web of  
Science



Researcher ID KWU-7142-2024, & A-6554-2015  
<https://www.webofscience.com/wos/author/record/60078089>

Scopus  
Author ID



58312484400, <https://www.scopus.com/authid/detail.uri?authorId=58312484400>

ORCID  
ID



(0000-0002-7461-0958) <https://orcid.org/0000-0002-7461-0958>

## ACTIVITIES ORGANIZED:

## TRAINING PROGRAMMES/CONFERENCE/WORKSHOP ORGANIZED:

- Topic-Devices Modelling and Simulation based Nano academic Technologies in the field of energy storage and batteries, 22.03.2022 by Mr. A. K Sharma, Managing Director, Impulse Technology
- **Organised** Expert lecture to celebrate ‘National Science Day’ delivered by **Prof. M. L. Verma**, Shri Shankaracharya Technical Campus Bhilai Chhattisgarh India, **on topic "Computer Experiment in nanoscience**, at Madan Mohan Malaviya University of Technology, Gorakhpur delivered on 27.02.2021.
- Organized Webinar Programme on “Seventh Anniversary and Foundation Day of University” in MMMUT on 01, December 2020
- Organized one-week Faculty Development Programme on “Recent Advances in Material Science and Research Ethics” scheduled 21-25 September 2020 (RAMSRE-2020)
- **Organised** Webinar on “Basics of Gaussian and its Applications” at Madan Mohan Malaviya University of Technology, Gorakhpur will be delivered on 19.05.2020 as organizing secretary/coordinator.
- **Organised** Expert lecture on ‘National Science Day’ delivered by **Prof. Uday Desh Pandey**, UGC-CSR at Madan Mohan Malaviya University of Technology, Gorakhpur delivered on 28.02.2020.
- **Co-convener to Organise IPNS-19:** “Induction Program for newly admitted students” (IPNS- 2019), organised between July 30-August-19, 2019
- **Joint Secretary to organise** National Conference on **Smart Materials, Devices and Sustainable Technologies** organised as a **joint secretary** between, 15-16 March-2019
- **Convener to Organise** IPNS-2018 “Induction Program for newly admitted students”

(IPNS- 2018), held between July 30-August-21, 2018

▪ **Convener to Organise IPNS-2017 “Induction Program for newly admitted students” (IPNS- 2017)**, organised between May-01-05, 2018

▪ **Joint Coordinator to organise “Hands on Training cum Workshop on Soft Computing Skill for Scientists and Engineers” (SCSSE-17)**, organized as a **Joint Coordinator** in D/o Applied Science, MMMUT, Gorakhpur, from 17-19 March, 17

▪ **Organiser of Expert lectures** in the different session of **“Induction Program for Newly Admitted Student”** in years 2017, 2018 and 2019 which was delivered by renowned persons of the different concerning fields from different organisation and institutes.

## **INVITED LECTURES/GUEST SPEAKER/EXPERT TALK/PRESENTATION DELIVERED**

- Delivered Oral presentation in **“International Conference on Recent Innovations in Biomaterials and Tissue Engineering (ICRIBTE-2024)”** jointly organized by Department of Chemistry & International Student Affairs, Harcourt Butler Technical University (HBTU), Kanpur, UP in association with the Department of Biotechnology, School of Biosciences & Technology, and Institute Innovation Council (IIC), Galgotias University, UP. during 6-7 December 2024
- Delivered Invited Talk in **15<sup>th</sup> National Conference on Solid State Ionics**, Organized by Department of Physics, Institute of Science, Banaras Hindu University, Varanasi. **during 2-4 December, 2023** Title- “Exploring electronic structures and quantum chemical insights into polymer complexes: a density functional theory approach.”
- Delivered Keynote Talk in **International Conference on ‘Research in Engineering and Technology’** jointly organized by Conference World and BIT, GIDA during 8th July to 9th July, 2021. Title- “ **ADVANCED IONOGELELECTROLYTES FOR HIGH ENERGY DENSITY RECHARGEABLE BATTERIES**”
- Delivered invited talk in **one-week FDP programme on title “Energy Storage Technology: Challenges in Materials Perspective”** organized by Department of Physics and Material Science, Madan Mohan Malaviya University of Technology Gorakhpur-273010 during 21-09-2020 to 25- 09-2020, title of programme- ““Recent Advances in Material Science and Research Ethics””
- Invited talk on **“Current State of Ionic Liquid-Based Electrolytes: Advantages and Challenges”** at **“National Conference on Physics and Chemistry of Advanced Materials”**- organised by Department of Physics, Mahatma Gandhi Central University, Motihari-845401, Bihar. (November 22-23, 2019)
- Oral presentation on **“Computational Studies of PEO<sub>3</sub>-NaClO<sub>4</sub> Based Solid Polymer Electrolyte for Na-ion Batteries”** at **“13<sup>th</sup> National Conference on Solid State Ionics (NCSSI- 13)”** organised by Department of Physics, IIT Roorkee, Roorkee. (December 16-18, 2019)
- **Presentation in TEQIP-III Sponsored National Conference on “Smart Materials, Devices and Sustainable Technologies (SMDST-2019)”**- organized by Department of Applied Science, Madan Mohan Malaviya University of Technology, Gorakhpur, India (March 15-16, 2019), Title- Challenges with Inorganic and Organic Hybrid Materials based Solid Electrolytes for their Energy Storage Applications,
- Oral presentation in **“12<sup>th</sup> National Conference on Solid State Ionics (NCSSI-12)”** organised by Department of Physics BITS Pilani, Pilani. (December 21-23, 2017), title of talk- **“Effect of controlled gelation on the electrical and optical behavior of ionic liquid based solid electrolyte”**
- Session Chair Two Days National Conference on **“Recent Trends in Devices, Circuits and Communication (RTDC<sup>2</sup>-2019)”**, sponsored by TEQIP-III, organised by Department of Electronics and Communication Engineering held during 15<sup>th</sup>-16<sup>th</sup> April, 2019 at M.M.M. University of Technology, Gorakhpur

## **SHORT TERM COURSE, FDP PROGRAMME ATTENDED/PARTICIPATED:**

<ul style="list-style-type: none"><li>• Faculty Development Programme (FDP) on “<i>ART OF LIVING</i>” organized by Harcourt Butler Technical University Kanpur, Kanpur Nagar, Uttar Pradesh, India, during <b>Jan. 18, 2025, to Jan 20, 2025</b>.</li></ul>
<ul style="list-style-type: none"><li>• Faculty Development Programme (FDP) on “<i>Futuristic Trends in Clean Energy and Manufacturing Technologies</i>” organized by the Human and Resource Development Cell (HRDC), Harcourt Butler Technical University Kanpur, Kanpur Nagar, Uttar Pradesh, India, during <b>Dec. 30, 2024, to Jan 04, 2025</b>.</li></ul>
<ul style="list-style-type: none"><li>• <b>UGC Sponsored 2-week 6<sup>th</sup> Refresher Course in Physics</b> jointly organized under UGC-MMTTC and DDUGU, Gorakhpur during <b>December 11<sup>th</sup> to December 24<sup>th</sup>, 2024</b></li></ul>
<ul style="list-style-type: none"><li>• <b>Two-Days Online Workshop on "Use of Artificial Intelligence (AI) in Teaching"</b> in association with SNS Innovation Labs (MAXPRO AI), organized by Human Resource Development Cell (HRDC), Harcourt Butler Technical University (HBTU), during <b>25<sup>th</sup> November, 2024 to 26<sup>th</sup> November, 2024</b>.</li></ul>
<ul style="list-style-type: none"><li>• One Week Online FDP on Challenges and Recent Trends in Mathematical Modeling and Scientific Computing, organized by Department of Mathematics, HBTU Kanpur during, 18 - 22 Dec, 2023,</li></ul>
<ul style="list-style-type: none"><li>• One Week FDP on "Advanced Materials Characterization Techniques" organized by Department of Plastic Technology, HBTU Kanpur, during 20 and 24th May, 2024 at HBTU, Kanpur</li></ul>
<ul style="list-style-type: none"><li>• One Week FDP on " Advance Pedagogical Learning and University Administration" organized by HRDC Cell, HBTU Kanpur during</li></ul>
<ul style="list-style-type: none"><li>• 27 May - 1 June, 2024</li></ul>
<ul style="list-style-type: none"><li>• Basic Concepts and Scientific Writing in LaTeX, organized by Department of Mathematics, HBTU Kanpur during, 11-Jun-2024</li></ul>
<ul style="list-style-type: none"><li>• <b>Attended and Participated in UGC sponsored Refresher course in “Information and Communication Technology”, organized by UGC-HRDC, DDUGU, Gorakhpur held during 27 Sept 2021 to 10 October 2021 with Grade A.</b></li></ul>
<ul style="list-style-type: none"><li>• <b>Successfully participated in IP Awareness/Training program under National Intellectual Property Awareness Mission, Intellectual Property Office, India on 29 April, 2022</b></li></ul>
<ul style="list-style-type: none"><li>• <b>AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Faculty Development Program on Energy Storage: Science &amp; Technology" National Motilal Nehru National Institute of Technology Allahabad, 20/09/2021 to 24/09/2021</b></li></ul>
<ul style="list-style-type: none"><li>• <b>Participated &amp; completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Mathematical Tools and Recent Advances in Applied Mathematics (MTRAAM)" from 16/08/2021 to 20/08/2021 at Madan Mohan Malaviya University of Technology, Gorakhpur</b></li></ul>
<ul style="list-style-type: none"><li>• <b>Trained in two weeks ‘Student Engagement, Future of Education, Design Thinking &amp; Innovation’ programme jointly organized by Strategyk Consilium Pvt. Ltd., Bengaluru and Madan Mohan Malaviya University of Technology, Gorakhpur during 24<sup>th</sup> April – 07<sup>th</sup> May, 2021</b></li></ul>
<ul style="list-style-type: none"><li>• <b>Participated and attended one week FDP on “Advanced Rechargeable Batteries: From Powder to Power”, Department of Physics and Department of Chemical Engineering, IIT Roorkee. 25th to 30th December 2020</b></li></ul>
<ul style="list-style-type: none"><li>• <b>Participated in Two Days International Seminar on the topic “National Education Policy 2020: Issues and Challenges in Implementation” organized by the Department of Humanities and Management Science under the Twinning Program with SVNIT, Surat in Association with TEQIP-III, MMMUT, Gorakhpur, during 08th October 2020 to 9th October 2020</b></li></ul>
<ul style="list-style-type: none"><li>• <b>Participated, attended, and successfully completed two-weeks training on “ADVANCED CONCEPTS FOR DEVELOPING MOOCS” organized by Ramanujan College, University of Delhi under MHRD under PMMMMNTT during July 02 - July 17, 2020</b></li></ul>
<ul style="list-style-type: none"><li>• <b>TEQIP-III sponsored One-week Short Term Course on “Research Methods and Data Analysis using SPSS &amp; AMOS (RMDASAM-2020)”, during January 27 to 31, 2020 at MMMUT, Gorakhpur</b></li></ul>
<ul style="list-style-type: none"><li>• <b>TEQIP-III sponsored One-week Short Term Course on “Recent Advances in Devices, Circuit and</b></li></ul>



### **Communication (RADCC-2020)", January 3-7, 2020**

- International Workshop on “**Energy Management in Smart Sustainable Cities**” conducted by Department of Electrical Engineering during 30<sup>th</sup> Nov- 1<sup>st</sup> December 2019 at MMMUT, Gorakhpur
- DAIoT-2019 One-week Short Term training Programme on “**Data Analytics and IoT**”, 04-08 November 2019”, jointly organized by Department of Computer Science & Engineering MMMUT, Gorakhpur & SVNIT-Surat
- One-week Faculty Development Programme on “**ICT in Advance Teaching and Learning for Academicians: A Gateway to Excellence**” jointly organised by Electronics and ICT Academy, MeitY, Govt. of India, NIT Patna & Department of Humanity and management Science, MMMUT from 14<sup>th</sup> to 18<sup>th</sup> October 2019
- 2019 IEEE REGION 10<sup>th</sup> INTERNATIONAL WORKSHOP on PANEL OF CONFERENCE ORGANIZERS (POCO-2019), September 25, 2019
- One-week national workshop on “**LaTeX and Its Applications**”, held during March 11-15, 2019 at MMMUT
- Attended one-week short term course on “**Research Methodology and Statistics**” during 24-30 October 2018 in MMMUT.
- 2017-March: Short term course on “**Emerging Trends in Material Sciences**” Organized by Department of Applied Science, Madan Mohan Malaviya University of Technology, Gorakhpur 22-29 March, 2017
- Hands on Training cum Workshop on soft computing skill for Scientists and Engineers (SCSSE- 17), 17th - 19th March-2017, Organized by the Department of Applied Science, M. M. M. University of Technology Gorakhpur.
- Short term course on “**Application of Physical Sciences in Engineering and Technology**”, organized by Department of Applied Science, Madan Mohan Malaviya University of Technology, Gorakhpur held during July 2-8, 2016

### **CO-CURRICULAR/ EXTRA CURRICULAR ACTIVITIES (VIZ. HOSTELS/ SPORTS/ CULTURAL/NSS ETC.**

- Under NCC, CSA, MMMUT: - Awareness programme, Cleanness awareness program, cloth distribution programme etc. organised and going to organized in next coming month.
- As a Warden: Functions regarding to maintenances of Hostel premises, doors, windows, walls, water supply, sewage, painting, nets, roads, mess, cleaning, gardening and proper listening and settlement of student’s grievances related to maintenance, electricity, hostels mess and cleaning etc.

### **HONORS/ PRIZES/ AWARDS/ COMMUNITY SERVICE PEER RECOGNITION:**

- **Best Oral Paper Presentation Award** of Excellence to my Ph.D. student Mr. Sarvesh Kumar Gupta in International Conference on “Advanced Functional Materials and Devices (AFMD- 2021)”, ARSDC and IQAC, University of Delhi, New Delhi
- **Young Scientist Award and Best Oral Paper Presentation Award** to our second research scholar Ms. Shivani Gupta in 21st National Conference on Solid State Nuclear Track Detectors and Their Applications (SSNTDs-21), jointly organized by Department of Physics, Ramjas College and Department of Physics & Astrophysics, University of Delhi in Collaboration with Nuclear Track Society of India (NTSI) along with cash prize.
- **Certificate of Achievement for participation** in My NEP quiz competition and secured 93% marks organized by Vidya Bharti on 24/09/2020
- **Certificate of Recognition** for My NEP Ambassador for the valuable contribution towards promoting the National Education Policy 2020.
- **Participated in online Q&A on the topic of Creativity and Personality** of Pandit Deen Dayal Upadhyay ji in the year of nectar festival of freedom organized by DDDGU, Gorakhpur
- **Contribution towards Community Development/ Community Service:** Different awareness programme along with orientation and induction programme has been organized through NSS, MMMUT and COVID- 19 awareness programme, Cleanness awareness program, etc. organised and going to organised different program in next coming month

## **PRESENTATIONS & PARTICIPATIONS IN NATIONAL & INTERNATIONALS WORKSHOPS AND CONFERENCES**

One Week Workshop on “Research Methodology for Multidisciplinary Perspectives of Physics” National Department of Physics, DDU Gorakhpur University, Gorakhpur during “June 29, 2021 - July 05, 2021
AICTE Sponsored One Week online Short-Term Training Program, Phase -II on “Energy Management and Control System For Smart Renewable Energy Remote Power Generation” organized by Department of Electrical and Electronics Engineering, AITS, Rajampet during participated and attended, 22-27 March, 2021
Participated in 2nd National Webinar on Frontiers in Basic Physics and Applications, National Barnagar College, Sorbhaj, Assam, 10 July, 2021
<b>2019 Presented and participated in “13<sup>th</sup> National Conference on Solid State Ionics (NCSSI-13)”</b> organised by Department of Physics, IIT Roorkee, Roorkee. (December 16-18, 2019) on title <b>“Computational Studies of PEO<sub>3</sub>-NaClO<sub>4</sub> Based Solid Polymer Electrolyte for Na-ion Batteries”</b>
<b>2019 TEQIP-III Sponsored National Conference on “Recent Advances in Mathematics and Scientific Computing (RAMSC-2019)”</b> - organised by Department of Applied Science, Madan Mohan Malaviya University of Technology, Gorakhpur, India (April 5-6, 2019)
<b>2019 TEQIP-III Sponsored “National Conference on Recent Advances in Chemical Science (NCRACS- 2019)”</b> , organized by Department of Applied science M.M.M. University of Technology, Gorakhpur held during March 29-30, 2019
<b>2019 Participated in MRC “Malaviya Research Conclave-2019”</b> organized at M.M.M. University of Technology, Gorakhpur during 24-26 February 2019.
<b>2018 Participated in “National Symposium on Advanced Materials (NSAM-2018)”</b> , organised by DDUGU, Gorakhpur between December 7-8, 2018
<b>2018 Participated in MRC “Malaviya Research Conclave-2018”</b> organized at M.M.M. University of Technology, Gorakhpur during during 6-8 July 2018 at M.M.M. University of Technology Gorakhpur.
<b>2018 TEQIP-III Sponsored “National conference on Recent Advances in Pure and Applied Mathematics (RAPAM-2018)”</b> , organised by Dept. of Applied Science M.M.M. University of Technology, Gorakhpur, 12 <sup>th</sup> & 13 <sup>th</sup> , April 2018
<b>2017, “12<sup>th</sup> National conference on Solid State Ionics”</b> , BITS Pilani, Rajasthan, 21-23 Dec, 2017
<b>2017 Induction Training program and workshop to the teachers for Induction to students</b> , organised by IIT-BHU, Varanasi from 15 Sept to 17 Sept, 2017
<b>2017 Participated in MRC “Malaviya Research Conclave-2017”</b> organized at M.M.M. University of Technology, Gorakhpur during 08-11 July, 2017
<b>2017 Workshop on “Pedagogical Training for effective teaching in technical education”</b> organized By M.M.M. University of Technology, Gorakhpur during 20-22 March, 2017
<b>2017: One Day workshop on Account and measurement organised by MMMUT</b>
<b>2017 Workshop on “Pedagogical Training for effective teaching in technical education”</b> organized by M.M.M. University of Technology, Gorakhpur during 20-22 March, 2017
<b>2017 “Induction program on effective communication skills”</b> organized by M.M.M. University of Technology, Gorakhpur during 08-10 March, 2017
<b>2016 “Visitors Programs”</b> organized by D/o Physics and Astrophysics, University of Delhi, Delhi
<b>2015 Oral presented (NCSSI-11):</b> in “11 <sup>th</sup> National Conference on Solid State Ionics, NCSSI- 2015, organized by D/o of Physics, Tezpur University on Dec 21-23, 2015
<b>2014 Oral presented (Australia):</b> in “4 <sup>th</sup> Asia Pacific Conference on Ionic Liquids & 6 <sup>th</sup> Australasian Symposium on Ionic Liquids, 2014” held at <b>Sydney, Australia</b> from Sept. 28-Oct. 1, 2014. <b>2014 Oral presented:</b> Seventh one day conference on “ <b>New Trend in Research</b> ” held at Dept of Physics, B.H.U., Varanasi on Feb 18, 2014
<b>2014 Participated:</b> in “ <b>8<sup>th</sup> All India Students' Conference on Science and Spiritual Quest (AISSQ- 2014)</b> ”, held at Indian Institute of Technology (BHU), Varanasi, India on February 1 - 2, 2014,
<b>2013 Poster presented:</b> in “ <b>10<sup>th</sup> National Conference on Solid State Ionics (NCSSI-10)</b> ” organised by Department of Physics & Meteorology, IIT-Kharagpur on Dec 22-24, 2013.
<b>2013 Poster presented:</b> conference on “ <b>Condensed Matter and Biological Systems</b> ” organised by Banaras Hindu University and University of Hyderabad, Hyderabad, Jan 11-14, 2013.
<b>2012 Oral presented:</b> Sixth one day conference on “ <b>New Trend in Research</b> ” held at Dept of Physics, B.H.U.,

Varanasi on Dec 20, 2012.
2012 <b>Poster presented:</b> The National Academy of Sciences (India) 82 <sup>nd</sup> Annual Session and National Symposium on “ <b>Nano-science &amp; Technology for Mankind</b> ”, Nov 29-Dec 1, 2012, Organized by Banaras Hindu University, Varanasi (India).
2012 <b>Poster presented: Fifth International Conference on “Electroactive Polymers Material &amp; Devices” ICEP-2012</b> , Nov 4-9, 2012, Organized by Dept. Of Physics, BHU, Varanasi (India).
2012 <b>Oral presented:</b> Fifth one day conference on “ <b>New Trend in physics</b> ” held at Dept of Physics, B.H.U., Varanasi on Feb25, 2012.
2011 <b>Poster presented: Ninth National Conference on solid state ionics,NCSSI- 2011 organized by Dept. of Physics &amp; Material Sci &amp; Eng., JIIT, Noida , Dec 15-17, 2011.</b>
2011 <b>Participated:</b> Workshop on “ <b>Writing Research Paper</b> ” held on held at Dept of Physics, B.H.U., Varanasi on June 10-11, 2011.
2011 <b>Participated:</b> Forth one day conference on “ <b>New Trend in physics</b> ” held at Dept of Physics, B.H.U., Varanasi on March 03, 2011.
2011 <b>Participated:</b> Workshop on “ <b>Electronic and ionic materials and devices</b> ” held at Dept of Physics, B.H.U., Varanasi on March 26-28, 2011.
2010 <b>Participated:</b> Fourth International Conference on “ <b>Electroactive Polymers : Material &amp; Devices</b> ” <b>ICEP-2010</b> , Nov 21-26, 2010,Surajkund (India)”
2010 <b>Participated:</b> Third one day conference on “ <b>New Trend in physics</b> ” held at Dept of Physics, B.H.U., Varanasi on March 30, 2010
2010 <b>Participated:</b> Workshop on “ <b>Chemometrics/techniques in vibrational spectroscopy</b> ” Feb 20, 2010, Organised by: Department of Physics, B.H.U, Varanasi, India
2010 <b>Participated:</b> Symposium on “ <b>Recent Trends In Biophysics</b> ” Feb 13- 15,2010,”Workshop on Emerging Techniques of Biophysics”: Feb-16, 2010, Organised by: Department of Physich, Banaras Hindu University, Varanasi, India
2010 <b>Participated:</b> International Workshop on “ <b>Spectroscopic signatures of Molecular complexes/ions in our atmosphere and beyond</b> ” Feb 2-4, 2010. Organised by: Uday Pratap Autonomous College, Varanasi, India
2010 <b>Participated</b> : National Symposium on “ <b>Synthesis,Characterisation and Application of Technologically Important Materials</b> ” (SCATM-2010) Organised by Material Research Society of India, Asia-Pacific Academy of Materials(BHU Chapter) Jan 5- 6,2011,Banaras Hindu University, Varanasi, India
2009 <b>Poster Presented:</b> 8 <sup>th</sup> National Conference on “ <b>Solid State Ionics: Materials for Novel Devices</b> ”, Dec 7 <sup>th</sup> -9 <sup>th</sup> 2009 Organised by: Department of Physics, Dr. Hari Singh Gaur University (Central University), Sagar (M.P.) India
2009 <b>Participated:</b> Symposium on “ <b>Recent Advances in Nano-Materials and their Applications</b> ” March 7 <sup>th</sup> -9 <sup>th</sup> , 2009, Organised by: DST Nanoscience and Technology centre/ Unit, Banaras Hindu University,Varanasi,India
2008 <b>Participated:</b> National symposium on ULTRASONICS December 4 <sup>th</sup> -6 <sup>th</sup> , 2008, Organised by Department of Physics, Banaras Hindu University, Varanasi, India

## **PERSONAL DETAILS**

<b><u>Home Town:</u></b>	Vijay Chowk, Near Sri Ram Janaki Mandir, Pipraich, Gorakhpur, UP-273152
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