

Dr. Abhishek Kumar Gupta

Current Position

Assistant Professor
Department of Physics and Material Sciences
M. M. M. University of Technology, Gorakhpur
Pin-273 010
Uttar Pradesh, India



Tel: + 91- 8765783678

E-mail: akgpms@mmmut.ac.in
akgupta.mmmut@gmail.com

Contact

Room No. AS-108, Ground Flr,
Department of Physics and Material Sciences
Madan Mohan Malaviya University of Technology
Gorakhpur-273010, U.P., India

Website: <https://sites.google.com/view/drakgupta/home>

Residence Address: -

Cha-Aa/IV/4, Behind Shubhash Bhawan, M.M.M. University of Technology Campus, M. M. M. University of Technology, Gorakhpur-273 010, Uttar Pradesh, India

Permanent Address: Ward No-8, Vijay Chauk, Pipraich, Gorakhpur (U.P.), India-273152

Education

Course	Name of the Board/ University	Year passed	Division/ Rank	% of Marks	Subjects studied
Ph. D.	Banaras Hindu University, Varanasi	2014 (Awarded)	Title of the Thesis: Studies onnano porous silica matrices, Area: Materials Science and Engineering,		
Master's degree	D.D.U. Gorakhpur University	2007	I st / First, 74.11 %, Physics		
NET/ SLET/SET for lectureship if any	Subject				Remarks
	CSIR-National Eligibility Test Physical Sciences [Five (5) times qualify -2008 to 2011]				--
Any other exams passed	GATE-2009 & 2010				--
	JEST-2009				---
Post Doctorate	Department of Physics & Astrophysics, University of Delhi, Delhi				---

Teaching Experience and Jobs

- 1. Assistant Professor (Regular), Department of Physics and Material Sciences, Madan Mohan Malaviya University of Technology, Gorakhpur (Autonomous University, Uttar Pradesh Government) since June 08, 2016, till date.**
- 2. Selected For Assistant Professor (Regular), Department of Physics, Magadh University, Bodh Gaya, Bihar (Bihar Public Service Commission, Govt. of Bihar), 2015-16.**
- 3. Assistant Professor, Department of Physics & Astrophysics, University of Delhi, Delhi between 15.05.2015 to 07.06.2016 (through UGC-DSK).**
- 4. Assistant Professor, Department of Physics, Suraj College of Engineering & Technology, Mohindergarh, Haryana between Jan 01, 2015 to May 12, 2015.**
- 5. Teacher (Honorarium Basis), Department of Physics, Institute of Science, Banaras Hindu University, Varanasi-221005 between 01/08/2011 to 30/07/2012.**

Research and Post Doctorate Experience

- 1. UGC- Dr. D.S. Kothari Postdoctoral Fellow, University of Delhi, Delhi between 15/05/15 to 07/06/16.**
- 2. Senior Research Fellow, CSIR, New Delhi, Institute of Science, Banaras Hindu University, Varanasi-221005 between April-2013 to Dec.-2014.**
- 3. UGC-Research Fellow, Fellowship in Science for Meritorious Student (UGC-RFSMS), BHU between Jan-2013 to March-2013**
- 4. Junior Research Fellow and Senior Research Fellow, Banaras Hindu University, Varanasi-221005 through National Academy of Sciences, India fellowship between Dec-2008 to Dec-2012.**
Project Investigator: Late Prof. Surash Chandra, Emeritus Scientist, NASI, Allahabad, India and Supervisor: Prof. Rajendra Kr. Singh, BHU, Varanasi, India.

University & Department's Position/Responsibilities held:

Research, Academic and Administrative position and responsibilities held at Madan Mohan Malaviya University of Technology, Gorakhpur

- **Nodal officer, NAAC, MMMUT**
- **Member Secretary, Departmental Internal Quality Assurance Cell, PMSD**
- **Convenor, Departmental Activities (Teachers and Students), 01/07/2022 till date**
- **Post Graduate Studies, Convenor, PMSD, MMMUT, 01/07/2019 till date**
- **Coordinator, Virtual Lab, PMSD, MMMUT**
- **Convenor, DPR, APR, MPR and Academic Proposals**
- **Coordinator Physics program, PMSD, MMMUT**
- **Coordinator NBA, Course File and CO-PO related work and DATA**
- **Warden, Vishweshraiya Bhawan, Boys Hostel from 01.07.2016 to July, 2020**
- **Warden, Kasturba Bhawan, July 2020 till date**
- **Programme Officer, NSS, CSA, MMMUT from 2016 to till date.**
- **Member, Cultural Sub Council, Council of Student Activities, MMMUT**
- **Faculty in charge, Day Scholar Club and Resident Scholar Club, MMMUT**
- **O/C of Basketball sport of students, CSA from 2016 to till date.**
- **Induction Training Program Officer, TEQIP, MMMUT**
- **O/C Departmental Timetable and Teaching load from June-2017 to till date.**
- **O/C Physics B.Tech-Laboratory-II, from Jun 2018 to till date.**
- **O/C DPR, APR, NBA, NIRF, India Today Ranking, CO-PO and related work of PMSD, MMMUT**
- **Member of different committee and cell, MMMUT**
- **Member, Board of Studies, Department of Physics and Material Sciences**
- **Member, Departmental Advisory Committee, Department of Physics and Material Sciences, MMMUT**
- **Design of new Ordinance, Curricula, Syllabus and Courses for M.Sc.-Physics**
- **Design and Prepared: Course Curriculum, outlines and file for B.Tech. Engineering Physics-I and Engineering Physics-II**
- **Co-convenor, Induction Program for Newly Admitted Students (IPNS):2019-20.**
- **Convenor, Induction Program for Newly Admitted Students : 2017-18, 2018-19**
- **Joint Organising Secretary- SMDST-2019**
- **Joint Coordinator, Three days "Hands on Training cum workshop" for scientist and Engineers**
- **Ph.D. Research Guidance/Supervision- Three ongoing**
- **Master Dissertation Supervision- Five completed and Six ongoing**
- **Research Project Ongoing- One minor- 2 Lakh**
- **Lab Setting: Setting of Physics Lab-II according to the syllabus of Engineering Physics-I & II of PMSD, M.M.M. University of Technology, Gorakhpur in 2017.**

Research

Research Publications (Details given below)	<ul style="list-style-type: none">● Total=41 (SCI+SCI Mago)● Published in SCI, International (UGC CARE)– Nineteen (25)● Published in SCI Mago, International – Seven (07)● Published in International Conference proceedings – (08)● Presented in International & National Conferences/Workshops – Twenty-Five (30)● Invited Talk Delivered: Five (10)● FDP/STTP/STC: - Seven (15)● Induction/Orientation Program Training: Three.
--	---

Research Interest

Materials for solid electrolytes for their application in energy storage devices, Solid State Ionics: Materials and Devices

Research interest includes:

- **Synthesis and characterization** of solid electrolyte materials and fabrication of electrochemical energy storage devices like **Li ion batteries, supercapacitors**

- **Theoretical, Computational and Experimental** Studies on **structural, thermal, optical, vibrational, mechanical, electrical, dielectric properties** of **ion conducting materials** such as ionogels (immobilization of ionic liquid into inorganic matrix and different polymeric membranes or nano porous matrices etc.) and to explore their **immense potential for many applications in energy devices.**

- **Optimizing material compositions and preparatory conditions** to develop better ion conducting materials and solid electrolyte materials with desired properties useful for **advance electrochemical energy device applications** which can meet the **current challenges, issues and concern of demand, development, safety and global warming**

- **Design and fabrication** of **ionogels and polymer gel electrolytes** with improved thermal, structural, mechanical, electrical and optical properties.

Courses taught/teaching

- Engineering Physics-I (BPM-127)
- Electrodynamics
- Engineering Physics-II (BPM-177)
- Quantum Mechanics
- Advance Quantum Mechanics and Quantum Field Theory

Publications in SCI/SCImago, International Journals

Publications- Total 41

H-index: 10, i10-index: 10, Citation: 296

International Referred Journals (SCI)

[1] 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**

[2] First-principle study on ionic pair dissociation in PEO-PVP-NaClO₄ 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**

[3] 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**

[4] 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**

[5] 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**

[6] Electronic, Thermal, and Vibrational Properties of SiO₂/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**

[7] Computational exploration 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**

[8] 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**

[9] 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**

[10] Role of ionic liquid [BMIMPF₆] in modifying the crystallization kinetics behavior of polymer electrolyte PEO-LiClO₄

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**

[11] Studies on structural, thermal and AC conductivity scaling of PEO-LiPF₆ polymer electrolyte with added ionic liquid [BMIMPF₆]

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**

[12] Studies on an ionic liquid confined in silica nanopores: Change in T_g 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**

[13] Crystallization kinetics behavior of ionic liquid [EMIM][BF₄] 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**

[14] 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**

[15] Viscoelastic, Surface and Volumetric Properties of Ionic Liquids [BMIM][OcSO₄], [BMIM][PF₆] and [EMIM][MeSO₃]

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**

[16] 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**

[17] 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**

[18] 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**

[19] One-Pot Highly Efficient Synthesis of N-Enrich Graphene Quantum Dots as a Photocatalytic Platform for NAD⁺/NADP⁺ Reduction

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**

[20] Highly Efficient S-g-CN/Mo-368 Catalyst for Synergistically NADH Regeneration Under Solar Light

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**

[21] 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**

[22] Eosin-Y and sulfur-codoped g-C₃N₄ 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,

Catal. Sci. Technol., 2021,11, 6401-6410, **Impact Factor: 6.2**

[23] Solar light active flexible activated carbon cloth-based photocatalyst for Markovnikov-selective radical-radical cross-coupling of S-nucleophiles to terminal alkyne and liquefied petroleum gas sensing, Pooja Singh, Rajesh Kumar Yadav, Vittal Gole, **Abhishek Kumar Gupta**, Kuldeep Kumar, B. C. Yadav, D. K. Dwivedi

Journal of Chinese Chemical Society, Wiley-VCH GmbH, Weinheim, 68 (8), 2021, 1435-1444, ISSN:2192-6549, **Impact factor:1.967**

B. International Journals (SCI Mago / Conference proceedings/SCOPUS)

[24] Ionogels: Present Opportunities, and Challenges for Future in Energy Storage Applications

Sarvesh Kumar Gupta, Shivani Gupta, **Abhishek Kumar Gupta**

Advanced Science, Engineering and Medicine, Vol. 12, No. 1 (2020), p.11-26.

ISSN: 2164-6635

[25] Poly (vinylidene fluoride-co-hexafluoropropylene): An Emerging Host Material for Ion Conducting Gel Polymer Electrolyte-Cum-Separator Membrane

Shivani Gupta, Sarvesh Kumar Gupta, B. K. Pandey, **Abhishek Kumar Gupta**

Advanced Science, Engineering and Medicine, Vol. 12, No. 1 (2020), p. 50-59.

ISSN: 2164-6635

[26] Structural and electronic properties of PVDF derived polymer: Ab initio study

Sarvesh Kumar Gupta, Jyoti Singh, Shivani Gupta, **Abhishek Kumar Gupta**

AIP Conference Proceedings, Vol. 2220, No. 1 (2020), p. 130058.

ISSN: 1551-7616

[27] Theoretical studies on structural and optical properties of PEO & NH₄SCN based solid polymer electrolyte

Vinay Shukla, **Abhishek Kumar Gupta**, Sarvesh Kumar Gupta

AIP Conference Proceedings, Vol. 2269, No. 1 (2020), p. 030062.

ISSN: 1551-7616

[28] A comprehensive device modeling of solid-state dye-sensitized solar cell by MATLAB
Omhari Dubey, **Abhishek Kumar Gupta**, SK Gupta
AIP Conference Proceedings, Vol. 2269, No. 1 (2020), p. 030061.
ISSN: 1551-7616

[29] Modelling and Simulation of Photovoltaic System Using MATLAB/Simulink
A. K. Srivastav, **Abhishek Kumar Gupta**, R. R. Jaiswal, Sarvesh Kumar Gupta
Journal of Physics: Conference Series, Vol. 1579, No. 1 (2020), p. 012024.
ISSN: 1742-6596

[30] Computational studies of PEO₃-NaClO₄ based solid polymer electrolyte for Na-ion batteries
S Gupta, V Shukla, Sarvesh Kumar Gupta, B. K. Pandey, **Abhishek Kumar Gupta**
AIP Conference Proceedings, Vol. 2220, No. 1 (2020), p. 130065.
ISSN: 1551-7616

[31] Studies on the interaction of Na⁺ ion with binary mixture of carbonate-ester solvents: A density functional theory approach
Sakshi Tiwari, **Abhishek Kumar Gupta**, Shivani Gupta, Sarvesh Kumar Gupta, Sujeet Kumar Chaurasia
Journal of Physics: Conference Series, Vol. 1849 (2021), p. 012024.
ISSN: 1742-6596

[32] Implementation and Mathematical Modelling of Hybrid Energy Storage System Mechanism based on the Photovoltaic System using MATLAB/ SIMULINK
Aishwarya Raj Srivastava, **Abhishek Kumar Gupta**, Sarvesh Kumar Gupta, Amul Kumar Srivastav, Rajesh Kumar Yadav
International Journal of Power Electronics Controllers and Converters, Volume 7, No. 1 (2021): p. 1-10.
ISSN: 2456-1614

C. National Journals (SCOPUS)

[33] Theoretical Analysis of Self-discharge behavior of Supercapacitor using physical parameter variation in Simulink/ MATLAB
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.
ISSN: 2455-3336

[34] Computational Studies on PVDF-HFP/Li-salt Composite Electrolyte for Lithium-ion Batteries
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.
ISSN: 2231-1777

[35] Numerical Simulation and Performance Characteristics of Solid-state Dye-sensitized Solar Cell using SCAPS 1D

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.

ISSN: 0973-418X

[36] Effect of Thickness of Absorber Layer on the Enhancement of Efficiency, and Performance of $\text{CH}_3\text{NH}_3\text{SnI}_3$ based Perovskite Solar Cell using SCAPS-1D

Km. Karishma, **Abhishek Kumar Gupta**, Omhari Dubey, Sarvesh Kumar Gupta
Journal of Nanoscience, Nanoengineering & Applications, Volume 11, No. 2 (2021): p. 1-7.

ISSN: 2231-1777

D. Book Chapters

[37] Studies on PVdF-HFP based polymer electrolyte with dispersed Ionic Liquid [BMIM][BF₄]: Thermal, structural and ionic transport behavior”, *Electroactive Polymers: Materials and Devices*, **2015, 5, 247-252**, (Allied Publishers Pvt. Ltd., New Delhi), ISBN: 978-81-8424-960-6

[38] Properties of ionic liquid in confined geometry, **2011, 4, 92-93**, *Electroactive Polymers: Materials and Devices*, (Macmillan Publishers India Ltd., New Delhi), ISBN:978-935-059-073-7.

[39] Investigation on ionic conductivity and Raman spectroscopic studies of ionic liquid immobilized PEO based polymer electrolytes

Sujeet Kumar Chaurasia, **Abhishek Kumar Gupta**, Sarvesh Kumar Gupta, Shivani Gupta, Pramod Kumar, Manish Pratap Singh

Advances in Functional Materials, Springer Nature Publisher

Functional Materials and Devices. Springer Proceedings in Materials, 2021, Vol 14. Springer, Singapore. https://doi.org/10.1007/978-981-16-5971-3_21

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.),

[40] Hybrid Mechanism of Supercapacitor and Battery for Building High Performance of Electric Vehicles

Divya Prabha, **Abhishek Kumar Gupta**, Shivani Gupta, Sarvesh Kumar Gupta, Jyoti Singh, Rajesh Kumar Yadav

Advances in Functional Materials, Springer Nature Publisher

Functional Materials and Devices. Springer Proceedings in Materials, 2021, Vol 14. Springer, Singapore. https://doi.org/10.1007/978-981-16-5971-3_21

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.),

[41] Recent Advancements in the Design of Electrode Materials for Rechargeable Batteries

Shivani Gupta, Abhishek Kumar Gupta,* Sarvesh Kumar Gupta and Mohan L Verma

Advanced Materials and Nano Systems, 2022, 53-66, **Bentham Science Publishers**

Bentham Science Publishers Pte. Ltd., 80 Robinson Road #02-00, Singapore 068898, Singapore

Edited By: Dibya Prakash Rai, Department of Physics, Pachhunga University College, Mizoram University, Aizawl, 796001, India

Research Projects: Completed: 01, Submitted: 02

Sr. No.	Name of PI/ Co-PI	Title	Funding Agency	Amount	Duration	Status
1	Dr. Abhishek Kr. Gupta	--	Research Initiation Grant, TEQIP III, MMMUT	2 Lakhs	2 Year	Completed
2	Dr. A. K. Gupta	--	SERB, New Delhi	Rs. 10 Lakhs	03 Year	Submitted
3.	Dr. A. K. Gupta	--	UPCST	Rs. 12,39,000	03 Year	Submitted

Ph.D. Supervision/Guided:**Total: 05; Awarded: 02, Ongoing: 03**

S.N.	Name of Student	Name of Supervisor	Topic of Thesis	Status
1.	Shivani Gupta	Prof. B. K. Pandey & Dr. A. K. Gupta	Density Functional Theory Studies of Interaction of Alkali Metal Salts and Plasticizers with Polyethylene Oxide PEO	Awarded, 2022, Joined 2018
2.	Sarvesh Kumar Gupta	Dr. A. K. Gupta	Density Functional Theory and Experimental Studies on Physicochemical Properties of Imidazolium Ionic Liquid and Inorganic Matrix Based Ionogels	Awarded, 2022, Joined-2018
3.	Ramesh Kumar Arya	Dr. A. K. Gupta	Theoretical investigation of Ion-conducting solid polymer electrolyte based on PEO incorporated with lithium salts	Continue, Joined-2019
4.	Mayank Srivastava	Prof. D. K. Dwivedi and Dr. A. K. Gupta	Solid Electrolytes for Energy Storage Devices	Continue, Joined-2021
5.	Abhay Prakash Srivastava	Prof. B. K. Pandey and Dr. A. K. Gupta	Equation of States Semiconducting and Nanomaterials	Continue, Joined-2021

Post Graduate/Master of Science Dissertation Guided: Total: Awarded-15, Ongoing-8**Detail of M. Tech/M.Sc. dissertation (Name of student, Title of dissertation)****Awarded: 15, Ongoing- 8**

S. No.	Name of Students	Supervisor	Title	Year
1.	Jyoti Singh	Dr. Abhishek Kr. Gupta	Synthesis of characterization of polymer gel electrolyte for Li ion batteries	2018
2.	Vinay Shukla	Dr. Abhishek Kr. Gupta	Study of electrical and structural properties of Na ion based solid electrolytes	2018
3.	Om Hari Dubey	Dr. Abhishek Kr. Gupta	Development and optical characterization of DSSC	2018
4.	Amul Kumar Srivastava	Dr. Abhishek Kr. Gupta	Modelling of EDLC	2018

5.	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
6.	Ankita Pandey (2019073005)	Dr. Abhishek Kr. Gupta	"Ab initio study of AGAR-AGAR biopolymer-based electrolyte"	2019-21
7.	Divya Prabha (2019073007)	Dr. Abhishek Kr. Gupta	“Studies on energy storage performance of supercapacitor using MATLAB/ Simulink”	2019-21
8.	Km. Karishma (2019073011)	Dr. Abhishek Kr. Gupta	“Enhancement in efficiency on optimization in layers of perovskite solar cell by using simulation technique”	2019-21
9.	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
10.	Sakshi Tiwari (2019073021)	Dr. Abhishek Kr. Gupta	“Computational studies on molecular structure of binary mixtures of organic electrolytes for sodium ion battery”	2019-21
11.	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	2022
12.	Priya Gupta, 2020073010	Dr. Abhishek Kr. Gupta	DFT study of Na-ion conducting biopolymer electrolyte based on Agar-Agar polysaccharide agarose	2022
13.	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 ₃ NH ₃ PbI ₃ Perovskite Solar Cell Using SCAPS-1D	2022
14.	Vijay Kirti Ratna, 2020073014	Dr. Abhishek Kr. Gupta	Numerical modeling of CZTS based thin-film solar cell via a non-toxic hybrid buffer layer	2022
15.	Amrita Gupta	Dr. Abhishek Kr. Gupta	Solid Electrolytes	2022
16.	Deepmala	Dr. Abhishek Kr. Gupta	Solid Electrolyte	2022
17.	Gaurav Pandey	Dr. Abhishek Kr. Gupta	Solar Cell	2022
18.	Mamta Singh	Dr. Abhishek Kr. Gupta	Solid Electrolyte	2022
19.	Priyanshu Srivastava	Dr. Abhishek Kr. Gupta	SCAPS-1D	2022
20.	Shyam Ji Srivastava	Dr. Abhishek Kr. Gupta	Solar Cell	2022

21.	Sonu Kumar	Dr. Abhishek Kr. Gupta	Solid Electrolyte	2022
22.	Vaibhav Pandey	Dr. Abhishek Kr. Gupta	SCAPS-1D	2022

Honours/ Prizes/ Awards/ Community Service Peer Recognition:

1. **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**
2. **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.**
3. **Certificate of Achievement for participation in MyNEP quiz competition and secured 93% marks organized by Vidya Bharti on 24/09/2020**
4. **Certificate of Recognition for MyNEP Ambassador for the valuable contribution towards promoting the National Education Policy 2020.**
5. **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**
6. **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**

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 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.
- 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
- 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 PEO₃-NaClO₄ Based Solid Polymer Electrolyte for Na-ion Batteries**” at “**13th National Conference on Solid State Ionics (NCSSI-13)**” organised by Department of Physics, IIT Roorkee, Roorkee. (December 16-18, 2019)

- Invited Talk in **Induction Program for New Students (IPNS-2019)** held during 30th July to 19th August 2019 at M.M.M. University of Technology, Gorakhpur.
- Invited Talk in **Induction Program for New Students (IPNS-2019)** on “**Clean and Green Campus: Sustainable Role of Students**” held during 1st May to 5th May, 2018 at M.M.M. University of Technology, Gorakhpur.
- Invited talk in **TEQIP-III Sponsored National Conference on “Recent Advances in Mathematics and Scientific Computing (RAMSC-2019)”**- organized by Department of Applied Science, Madan Mohan Malaviya University of Technology, Gorakhpur, India (April 5-6, 2019)
- Invited talk in at **TEQIP-III Sponsored National Conference on “Recent Advances in Chemical Sciences (NCRACS-2019)”**- organized by Department of Applied Science, Madan Mohan Malaviya University of Technology, Gorakhpur, India (March 29-30, 2019)
- Invited talk 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)
- Invited Talk in **Induction Program for New Students (IPNS-2019)** on “**Environmental issue: Our Role and Management**” held during 30th July to 21st August, 2018 at M.M.M. University of Technology, Gorakhpur.
- Invited Talk in **Induction Program for New Students (IPNS-2019)** on “**Role of discipline to excel in technical education**” held during 30th July to 21st August, 2018 at M.M.M. University of Technology, Gorakhpur.
- Oral presentation in “**12th National Conference on Solid State Ionics (NCSSI-12)**” organised by Department of Physics BITS Pilani, Pilani. (December 21-23, 2017)
- Session Chair Two Days National Conference on “**Recent Trends in Devices, Circuits and Communication (RTDC²-2019)**”, sponsored by TEQIP-III, organised by Department of Electronics and Communication Engineering held during 15th-16th April, 2019 at M.M.M. University of Technology, Gorakhpur

Short Term Course & ATAL, Faculty Development Programme Attended/Participated

21. 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.

20. Successfully participated in IP Awareness/Training program under National Intellectual Property Awareness Mission, Intellectual Property Office, India on 29 April, 2022

19. AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Faculty Development Program on Energy Storage: Science & Technology" National Motilal Nehru National Institute of Technology Allahabad, 20/09/2021 to 24/09/2021

18. Participated & 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

17. Trained in two weeks 'Student Engagement, Future of Education, Design Thinking & Innovation' programme jointly organized by Strategyk Consilium Pvt. Ltd., Bengaluru and Madan Mohan Malaviya University of Technology, Gorakhpur during 24th April – 07th May, 2021

16. 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

15. 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

14. Participated, attended, and successfully completed two-weeks training on "ADVANCED CONCEPTS FOR DEVELOPING MOOCS" organized by Ramanujan College, University of Delhi under MHRD under PMMMNTT during July 02 - July 17, 2020

13. TEQIP-III sponsored One-week Short Term Course on "Research Methods and Data Analysis using SPSS & AMOS (RMDASAM-2020)", during January 27 to 31, 2020 at MMMUT, Gorakhpur

12. TEQIP-III sponsored One-week Short Term Course on "Recent Advances in Devices, Circuit and Communication (RADCC-2020)", January 3-7, 2020

11. International Workshop on "Energy Management in Smart Sustainable Cities" conducted by Department of Electrical Engineering during 30th Nov- 1st December 2019 at MMMUT, Gorakhpur

10. 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

9. 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 14th to 18th October 2019

8. 2019 IEEE REGION 10th INTERNATIONAL WORKSHOP on PANEL OF CONFERENCE ORGANIZERS (POCO-2019), September 25, 2019

7. One-week national workshop on “**LaTeX and Its Applications**”, held during March 11-15, 2019 at MMMUT

6. Attended one-week short term course on “**Research Methodology and Statistics**” during 24-30 October 2018 in MMMUT.

5. 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

4. 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.

3. 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

2. 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

1. 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

Other Extension Activities (reviews/ reports/ popular articles/ popularizing science and education

Reviewer of the Manuscript ID JES-107915, entitled "Theoretical Study of the Electrochemical Properties for Solid Electrolytes Containing Ethoxy and Carbonate Groups." of Journal of The Electrochemical Society

Contribution towards Community Development/ Community Service:

Different awareness programme along with orientation and induction programme has been organized through NSS, MMMUT during 21-2022.

Administrative & Other Services:

- Classes for B.Tech.-Engineering Physics (BSM-127 and BSM-177) and M.Sc.-Physics (MPM-103, MPM-107 and MPM-221) along with lab have been taken in physical mode.
- All related notes, PPT, study materials, assignments have been prepared and successfully delivered to the students.
- All academic; teaching and research learning process as well as viva-voce exams of four PG Dissertation students have been conducted successfully.
- DRC of Ph.D. students and their progress monitored throughout the year.
- Research and project assignments have also been completed along with submission of scientific projects in SERB, DST and UPCST etc. funding sources.
- Minor and Major Exam duties, external examiner duty, copies evaluations, paper setting, moderation, marks uploading etc. duties have performed on time.

Co-Curricular/ Extra Curricular Activities (viz. Hostels/ Sports/ Cultural/ NCC/ NSS etc.

1. Under NCC, CSA, MMMUT: - Awareness programme, Cleanness awareness program, cloth distribution programme etc. organised and going to organized in next coming month.
2. 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.

Plans in the coming years (teaching/ research/ consultancy/ administration

1. To empower myself with new pedagogical skills and techniques, more research methodologies, and to equip me with the latest in information technology both for gathering of knowledge as well as its dispensation and acquaint with processes of institutional administration and self-development.
2. To update my field of knowledge, expertise and skill with the latest available research, resource and technology for the better outcomes and publications in academics. Inter and cross-disciplinary methodologies will me prioritize.
3. To be familiar with the basics of various offline and online teaching methods, MOOCs, and to explore the advanced concepts of MOOCs for upgrading the way of my teaching, learning and professional development.
4. To improve my learning by using certain web tools and techniques to relive the classroom experience while sitting at our homes.
5. To prepare myself as a skilled and professionally competent resource person for this education system education and learning.
6. To develop teaching course module and Lectures according to NEP and to incorporate some new problems, assignments, and tutorials for the graduate and post graduate students to attain the CO-PO, PSOs and technical need of the course.
7. To prepare PPTs, study materials and notes for the UG and PG courses which are taught by me.
8. Planning to write more quality research articles and review papers.
9. To develop the research laboratory and to full fill the need of urgent equipment's, softwares; more projects will be submitted in state and central funding agencies.
10. For research outcomes, collaborations with different central universities, institutes and IITs etc. will be done.
11. As a warden, I am planning to improve many existing facilities in the Hostel and to resolve the issues of electric, water, room maintenance, cleaning and mess related problems etc.
12. As a member of different working committee of Department and University, I am going to participate and coordinate actively in all activities and do more well and better than what I did.
13. I am going to improve my different soft and hard skills to achieve the academic goals and to support the goals of Department and University.

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, Sorbhoj, Assam, 10 July, 2021

Presented and participated in “**13th National Conference on Solid State Ionics (NCSSI-13)**” organised by Department of Physics, IIT Roorkee, Roorkee. (December 16-18, 2019) on title “**Computational Studies of PEO₃-NaClO₄ Based Solid Polymer Electrolyte for Na-ion Batteries**”

2019 TEQIP-III Sponsored National Conference on “Recent Advances in Mathematics and Scientific Computing (RAMSC-2019)”- organised by Department of Applied Science, Madan Mohan Malaviya University of Technology, Gorakhpur, India (April 5-6, 2019)

2019 TEQIP-III Sponsored “National Conference on Recent Advances in Chemical Science (NCRACS-2019)”, organized by Department of Applied science M.M.M. University of Technology, Gorakhpur held during March 29-30, 2019

2019 Participated in MRC “Malaviya Research Conclave-2019” organized at M.M.M. University of Technology, Gorakhpur during 24-26 February 2019.

2018 Participated in “National Symposium on Advanced Materials (NSAM-2018)”, organised by DDUGU, Gorakhpur between December 7-8, 2018

2018 Participated in MRC “Malaviya Research Conclave-2018” organized at M.M.M. University of Technology, Gorakhpur during during 6-8 July 2018 at M.M.M. University of Technology Gorakhpur.

2018 TEQIP-III Sponsored “National conference on Recent Advances in Pure and Applied Mathematics (RAPAM-2018)”, organised by Dept. of Applied Science M.M.M. University of Technology, Gorakhpur, 12th & 13th, April 2018

2017, “12th National conference on Solid State Ionics”, BITS Pilani, Rajasthan, 21-23 Dec, 2017

2017 Induction Training program and workshop to the teachers for Induction to students, organised by IIT-BHU, Varanasi from 15 Sept to 17 Sept, 2017

2017 Participated in MRC “Malaviya Research Conclave-2017” organized at M.M.M. University of Technology, Gorakhpur during 08-11 July, 2017

2017 Workshop on “Pedagogical Training for effective teaching in technical education” organized By M.M.M. University of Technology, Gorakhpur during 20-22 March, 2017

2017: One Day workshop on Account and measurement organised by MMMUT

2017 Workshop on “Pedagogical Training for effective teaching in technical education” organized by M.M.M. University of Technology, Gorakhpur during 20-22 March, 2017

2017 “Induction program on effective communication skills” organized by M.M.M. University of Technology, Gorakhpur during 08-10 March, 2017

2016 “Visitors Programs” organized by D/o Physics and Astrophysics, University of Delhi, Delhi

2015 Oral presented (NCSSI-11): in “11th National Conference on Solid State Ionics, NCSSI- 2015, organized by D/o of Physics, Tezpur University on Dec 21-23, 2015

2014 Oral presented (Australia): in “4th Asia Pacific Conference on Ionic Liquids & 6th Australasian Symposium on Ionic Liquids, 2014” held at **Sydney, Australia** from Sept. 28-Oct. 1, 2014.

2014 Oral presented: Seventh one day conference on “**New Trend in Research**” held at Dept of Physics, B.H.U., Varanasi on Feb 18, 2014

2014 Participated: in “8th All India Students' Conference on Science and Spiritual Quest (AISSQ-2014)”, held at Indian Institute of Technology (BHU), Varanasi, India on February 1 - 2, 2014,

2013 Poster presented: in “10th National Conference on Solid State Ionics (NCSSI-10)” organised by Department of Physics & Meteorology, IIT-Kharagpur on Dec 22-24, 2013.

2013 Poster presented: conference on “**Condensed Matter and Biological Systems**” organised by Banaras Hindu University and University of Hyderabad, Hyderabad, Jan 11-14, 2013.

2012 Oral presented: Sixth one day conference on “**New Trend in Research**” held at Dept of Physics, B.H.U., Varanasi on Dec 20, 2012.

2012 Poster presented: The National Academy of Sciences (India) 82nd Annual Session and National Symposium on “ **Nano-science & Technology for Mankind**”, Nov 29-Dec 1, 2012, Organized by Banaras Hindu University, Varanasi (India).

2012 Poster presented: Fifth International Conference on “Electroactive Polymers Material & Devices” ICEP-2012 , Nov 4-9, 2012, Organized by Dept. Of Physics, BHU, Varanasi (India).

2012 Oral presented: Fifth one day conference on “ **New Trend in physics**” held at Dept of Physics, B.H.U., Varanasi on Feb25, 2012.

2011 Poster presented: Ninth National Conference on solid state ionics,NCSSI- 2011 organized by Dept. of Physics & Material Sci & Eng., IIIT, Noida , Dec 15-17, 2011.

2011 Participated:Workshop on “**Writing Research Paper**” held on held at Dept of Physics, B.H.U., Varanasi on June 10-11, 2011.

2011 Participated: Forth one day conference on “ **New Trend in physics**” held at Dept of Physics, B.H.U., Varanasi on March 03, 2011.

2011 Participated: Workshop on “**Electronic and ionic materials and devices**” held at Dept of Physics, B.H.U., Varanasi on March 26-28, 2011.

2010 Participated: Fourth International Conference on “**Electroactive Polymers : Material & Devices**” ICEP-2010, Nov 21-26, 2010,Surajkund (India)”

2010 Participated: Third one day conference on “ **New Trend in physics**” held at Dept of Physics, B.H.U., Varanasi on March 30, 2010

2010 Participated: Workshop on “**Chemometrics/techniques in vibrational spectroscopy**” Feb 20, 2010, Organised by: Department of Physics, B.H.U, Varanasi, India

2010 Participated: Symposium on “**Recent Trends In Biophysics**” Feb 13-15,2010,”Workshop on Emerging Techniques of Biophysics”: Feb-16, 2010, Organised by: Department of Physich, Banaras Hindu University, Varanasi, India

2010 Participated: International Workshop on “**Spectroscopic signatures of Molecular complexes/ions in our atmosphere and beyond**” Feb 2-4, 2010. Organised by: Uday Pratap Autonomous College, Varanasi, India

2010 Participated : National Symposium on “**Synthesis,Characterisation and Application of Technologically Important Materials**” (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 Poster Presented: 8th National Conference on “**Solid State Ionics: Materials for Novel Devices**”, Dec 7th-9th 2009 Organised by: Department of Physics, Dr. Hari Singh Gaur University (Central University), Sagar (M.P.) India

2009 Participated: Symposium on “**Recent Advances in Nano-Materials and their Applications**” March 7th-9th, 2009, Organised by: DST Nanoscience and Technology centre/ Unit, Banaras Hindu University, Varanasi, India

2008 Participated: National symposium on ULTRASONICS December 4th-6th, 2008, Organised by Department of Physics, Banaras Hindu University, Varanasi, India

Achievements, Awards and Prizes

2016: **Selected for Assistant Professor, Public Service Commission, Govt. of Bihar, Bihar**

2015: **UGC- Dr. D. S. Kothari, Postdoctoral Fellowship Award**, UGC-New Delhi, India, 2015

2013 Young Scientist Award: in “**10th National Conference on Solid State Ionics (NCSII-10)**” for **Best poster presentation**, organised by Department of Physics & Meteorology, Indian Institute of Technology (IIT)-Kharagpur on Dec 22-24, 2013.

2013 **C.S.I.R. Senior Research Fellowship** –by Council of Scientific & Industrial Research (**CSIR**) New Delhi, INDIA

2013 **U.G.C.-Research Fellowship in Science for Meritorious Student (RFSMS)** - from 21 Jan, 2013 – 31 March, 2013, by University Grant Commission (**UGC**), New Delhi, INDIA

2012 **C.S.I.R.-National Eligibility Test** Qualified Certificate June-2012 (ROLL NUMBER:-526622) held by Council of Scientific & Industrial Research, New Delhi, INDIA

2011 **C.S.I.R.-National Eligibility Test** Qualified Certificate June-2011 (ROLL NUMBER:-526433) held by Council of Scientific & Industrial Research, New Delhi, INDIA

2011 **Most active interacting participant award:** in deliberation of Workshop on “**Writing Research Paper**” held at Dept of Physics, **B.H.U.**, Varanasi on June 10-11, 2011

2010 **Graduate Aptitude Test Entrance (G.A.T.E.)** Qualified Certificate, (ROLL NUMBER:- 5553382, SCORE:-351, A.I.R.-713) Organised by Indian Institute of Technology (IIT)- Guwahati, INDIA

2009 **C.S.I.R.-National Eligibility Test** Qualified Certificate December-2009 (ROLL NUMBER:-514214) held by Council of Scientific & Industrial Research, New Delhi, INDIA

2009 **Joint Entrance Screening Test (J.E.S.T.)** Qualified Certificate - (ROLL NUMBER:- P0900771,A.I.R.-69) Organised by **ARIES**, INDIA

2009 **Graduate Aptitude Test Entrance** Qualified Certificate, (ROLL NUMBER: - PH3480248, SCORE: 323) Organised by Indian Institute of Technology (IIT)-Roorakee, INDIA

2008 C.S.I.R.-National Eligibility Test Qualified Certificate December-2008 (ROLL NUMBER:- 505051) held by Council of Scientific & Industrial Research, New Delhi, INDIA

2008 N.A.S.I.-Junior Research Fellowship from National Academy of Sciences, Allahabad, INDIA

2008 C.S.I.R.-National Eligibility Test Qualified Certificate June-2008 (ROLL NUMBER :-503234) held by Council of Scientific & Industrial Research, New Delhi, INDIA

2007 University Meritorious Fellowship

2006 University Meritorious Fellowship

2005 Best Quiz and Poster award For Quiz and Poster Competition in D.D.U.Gorakhpur, University, and Organised by Deen Dayal Upadhyay Gorakhpur University, Gorakhpur, INDIA

2004 University Meritorious Fellowship

2003 University Meritorious Fellowship

2002 University Meritorious Fellowship

2002 Prize for securing first rank in college (12th)

2000 Prize for securing first rank in college (10th)

2000: Won 1st & 3rd Prize/Certificate in Tehsil & District level cultural competitions.

1999 District level Cultural competition- 3rd place.

1998 1st Prize in debate competition at college level.

Won Prizes in various educational competitions at school level.