

CURRICULUM VITAE

I. Personal Data:

Name : **Dr. ABHISHEK KUMAR MISRA**
Date of Birth : 28, January, 1983
Present Position : Assistant Professor
& Address : Department of Physics
Govt. V.Y.T. P.G. Autonomous College
Durg, Chhattisgarh, India
Residential Address : C 17 Ganpati Vihar Colony
Borsi, Durg,
Chhattisgarh, India
Telephones : 09451757987, 07985629641 (mobile)
Category : General
Gender : Male
E-mail : abhi_physics123@rediffmail.com
abhiphysics01@gmail.com
abhi_physics123@govtsciencecollegedurg.ac.in



Website: <http://govtsciencecollegedurg.ac.in/Departments.aspx?dp=Physics>

My YouTube channel

<https://www.youtube.com/c/drabhishekkumarmisra>

II. Educational Qualifications:

- B.Sc., obtained Ist Division with Physics, Chemistry and Mathematics, BSNV PG College Station Road Lucknow, Uttar Pradesh
- M.Sc. in Physics, secured Ist Division, University of Lucknow, Lucknow, Uttar Pradesh India, 2003
- Ph.D. in Physics, University of Lucknow, Lucknow, Uttar Pradesh, India, 2009.

Thesis Title: Dielectric, optical and switching behaviour of some doped liquid crystal

Thesis supervisor: Prof. Rajiv Manohar

Ph.D. thesis work is original and **high standard merit**.

III. Professional Career:

- UGC Junior Research Fellow (JRF), 2005-2007
University of Lucknow, Uttar Pradesh
- UGC Senior Research Fellow (SRF), 2007-2009
University of Lucknow, Uttar Pradesh
- Post Doctoral Fellow (PDF) in Physics, Dec. 2009 – Dec. 2012
University of Lucknow, Uttar Pradesh,
- Principal Investigator (SERC FAST TRACK PROJECT),
Jan 2014 – Jun. 2017
University of Lucknow, Uttar Pradesh
- Assistant Professor in Physics, 05 Sept 2017- onward
Govt.V.Y.T.P.G. Autonomous College Durg Chhattisgarh,

Research Supervisor : Hemchand Yadav University Durg

Ph. D Student: (03) TIRATH SINHA submitted his thesis in 2023 and Shashi Sahu & Usha Yadav are doing their Ph.D

IQAC MEMBER OF COLLEGE

Assistant Controller, Autonomous Exam Cell

Major Research Project sanctioned by College in March 2021 and completed in 2023..

IV. Academic & Technical Skill Area::

- Physics: Intermediate, Graduation, Medical and Engineering level.
- Nuclear physics and electrodynamics.
- Solid State Physics (Magnetic Thermal and Electric Properties etc)
- LASER and Opto-Electronics.
- Quantum Physics
- Optics, Non-linear optics.
- Thermal physics and kinetic theory of gases.
- Nuclear and Particle Physics
- Engineering Physics

Research Areas:

- New Materials Technologies: High performance Liquid crystals Materials.
- Liquid Crystals and its Properties (Electrical & Optical).

- Composite Materials (non mesogenic compound disperse in liquid crystals).
- Liquid Crystal Display Devices.
- Nematic Liquid Crystal (TN and STN LCD Devices)
- Ferroelectric, Antiferroelectric Liquid Crystal Technology,
- Liquid Crystals for Non-Linear Optics.
- Composite Materials for Various applications.

Teaching Aptitude:

Teaching science with an interesting approach, using all teaching aids, innovative ideas for better understanding of –

Scientific phenomenon, facts, laws, definitions, concepts, theories.

Scientific vocabulary terminology, conventions.

Scientific instruments, apparatus, techniques of operation and aspects of safety.

To enable students to acquire sufficient understanding and knowledge of science to-

Recognize usefulness, limitation and its applicability in everyday life.

Present reasoned explanation of phenomenon, patterns and relationship.

Simulate interest in and care of environment.

Special attention to low performers by-

Motivating them.

Highlighting their positive points.

Tracking of their weaker areas and guide accordingly

Strengths:

- Self-motivated with a hardworking nature.
- Creative and strong coordinating capabilities.

PARTICIPATION IN FACULTY DEVELOPMENT PROGRAM. INTERNATIONAL AND NATIONAL WEBINAR, INTERNATIONAL AND NATIONAL E CONFERENCES AND QUIZ

FACULTY DEVELOPMENT PROGRAM:	13
INTERNATIONAL WEBINAR AND E CONFERENCE:	12
NATIONAL WEBINAR AND E CONFERENCE:	53
NATIONAL LEVEL QUIZ:	51

THREE NATIONAL LEVEL QUIZ ORGANIZED BY ME

- 1. ADVANCE PHYSICS QUIZ:** <https://forms.gle/k4dzpzSA9hQjkGPa7>
- 2. PHYSICAL SCIENCE QUIZ:** <https://forms.gle/dqjnrEbfgiA81mWy8>
- 3. TEACHER'S DAY QUIZ:** <https://forms.gle/9BAgkzh2ahh7rKi87>

ATTENDED ORIENTATION AND REFRESHER COURSE

- ❑ **ORIENTATION COURSE: 25 JULY-14 AUGUST 2019 (PT. RSU RAIPUR)**
- ❑ **ONE WEEK FDP (RRGI LUCKNOW) 01-06 JUNE 2020 (07 DAYS)**
- ❑ **ONE WEEK STTP (K.D.K. COLLEGE OF ENGINEERING, NAGPUR) 17-22 JUNE 2020 (06 DAYS)**
- ❑ **FDP HEMCHAND YADAV UNIVERSITY, DURG 22 JULY TO 31 JULY 2020 (10 DAYS)**
- ❑ **ONLINE STTP SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE 27 JULY -31 JULY 2020 (05 DAYS)**
- ❑ **ONLINE FDP DEPARTMENT OF ELECTRONICS AND COMMUNICATION UNIVERSITY OF ALLAHABAD 04-10 AUGUST 2020 (07 DAYS)**
- ❑ **FDP FROM ROORKEE COLLEGE OF MANAGEMENT & COMPUTER APPLICATIONS, ROORKEE 08 -14 AUGUST 2020**
- ❑ **Faculty Development Program on ENTREPRENEURIAL MINDSET GOVT. VISHWANATH YADAV TAMASKAR PG AUTONOMOUS COLLEGE, DURG (C.G.) 16-25 AUG 2020**
- ❑ **REFRESHER COURSE: 02 JULY -17 JULY 2020 (RAMANUJAN COLLEGE DELHI)**
- ❑ **REFRESHER COURSE (PHYSICS) : 13 FEB -27 FEB 2021 (HRDC UNIVERSITY OF LUCKNOW)**
- ❑ **FIVE DAYS ONLINE WORKSHOP NEW NAAC ACCREDITATION FRAMEWORK HEMCHAND YADAV VISHWAVIDYALAYA, DURG 9-14 APRIL 2021**

ACTIVITIES FROM MARCH 2021

1. Contributed as technical member in Durg Divisional Online Class from 26 November 2020 to 15 May 2021.
2. Participated in a two days international conference on 'Role of functional nanomaterials in combating Covid 19' From 29 Dec To 30 Dec 2020 organized by Govt. VYTPG College Durg.
3. Participated in Refresher Course in Physics organized by HRDC University of Lucknow from 13 Feb 2021 to 27 Feb 2021.
4. Contribution as a member of the Working Committee in National Workshop on Emotional Intelligence: Key of Success on 5 and 6 March 2021.
5. The Major Research Project has been accepted by a committee of Govt. VYTPG College Durg on Quantum Dots Dispersed Liquid Crystal in March 2021.
6. Participated in a five days online workshop on 'New NAAC Accreditation Framework' From 9th April To 14th April 2021 organized by Hemchand Yadav University, Durg (C.G.).
7. Contribution as a Jury member Poster (category - II) for Eco Club Ignition Programme organized by Govt. VYTPG College Durg from 20-22 April 2021.
8. Convener of Online Book Day Competition on 23 April 2021 organized by Govt. VYTPG College Durg.

9. Convener of Online NET/SET/ JEST/ GATE coaching classes started from 26 April 2021 organized by Govt. VYTPG College Durg.
10. Invited lecture on Physics for UG students of IGGC Vaishali Nagar on 30 April 2021.
11. Contribution as a member of the Working Committee in National Workshop On Intellectual Property Rights organized by Govt. VYTPG College Durg from 3/5/2021 to 09/5/2021.
12. Participated in an online Lecture on Psychology of Happiness on 10 May 2021 organized by Govt. VYTPG College Durg.
13. Participated in an online webinar on Green Energy from 10-15 May 2021 organized by IGGC Vaishali Nagar.
14. Participated in a ten days online workshop on 'Seven Criterias of New NAAC Accreditation Framework' From 7th May To 16th May 2021 organized by Hemchand Yadav University, Durg (C.G.).
15. Participated in an online FDP on Handling workplace challenges in the present educational paradigm from 10 May -16 May 2021 organized by Shail Devi College Anda Durg.
16. Contribution as a member of the Working Committee in Online Awareness 18+ Covid 19 Vaccination Drive on 15 May 2021 organized by Govt. VYTPG College Durg.
17. Participated in a National Webinar on Modern Aspects in Botanical Sciences from 19 May - 20 May 2021 organized by Govt. VYTPG College Durg.
18. Contribution as a member of the Working Committee in Seven days workshop on Research Methodology from 24-30 May 2021 organized by Govt. VYTPG College Durg.
19. Participated in a National Webinar on Recent Trends and Future Scope of Computer Science from 26 May - 28 May 2021 organized by Govt. VYTPG College Durg.
20. Contribution as a member of the Working Committee in Online Competition on Water Conservation from 24-27 May 2021 organized by Govt. VYTPG College Durg.
21. Contribution as a member of the Working Committee in National Webinar On ECOSYSTEM RESTORATION on 5 & 6 June 2021 organized by Govt. VYTPG College Durg.

22. Participated in an INTERNATIONAL WEBINAR On "Energy and Environment" from 4-6 June 2021 organized by Kalyan PG College Bhilai.
23. Participated in the Faculty Development Program on Modules of Self Development from 5-11 June 2021 organized by IG PG College Vaishali Nagar Bhilai.
24. Contribution as a member of the Working Committee in Online Competition on Water Conservation from 24-27 May 2021 organized by Govt. VYTPG College Durg.
25. Participated in ONLINE DIPLOMA COURSE ON BHAGAVAD GITA by ISKCON AYODHYA on 01 June -18 June 2021.
26. Participated in ONLINE WORLD ENVIRONMENT DAY CEREMONY by Hemchand Yadav University Durg on 07 June 2021.
27. Participated in a National Webinar on Relevance of Indian Knowledge Tradition in Global Health Protection on 08 June 2021 organized by Govt. VYTPG College Durg.
28. Participated in ONLINE LECTURE SERIES "MEET THE DOCTOR" by Hemchand Yadav University Durg from 06 June - 12 June 2021.
29. Contribution as a member of the Working Committee in Catch the Rains on 8 June 2021 organized by Govt. VYTPG College Durg.
30. Contribution as a member of the Working Committee in 15 Day's Virtual Workshop on Efficiency of Yoga in Covid-19 Yoga at Home and Yoga with Family from 18 June to 2 July 2021 organized by Govt. VYTPG College Durg.
31. Inspection Committee Member for inspection of Bhilai Mahila College Durg on 19 June 2021.
32. Participated in National Level Workshop for Higher Educational Institutions on Transformation Through NAAC Accreditation Process held on 21st & 22nd June 2021 conducted by "Institute for Academic Excellence, Hyderabad" in collaboration with "Collegiate Education & Technical Education Department, Telangana State
33. Inspection Committee Member for inspection of Rungta College of Science & Technology Ganjpara Durg , Bhilai Mahila College Durg on 22 June 2021.

34. Participated in a National Webinar cum Workshop on "Luminescence Applications and Materials on 25 June 2021 organized by LUMINESCENCE SOCIETY OF INDIA in collaboration with SSN COLLEGE OF ENGINEERING Kalavakkam, Tamilnadu.
35. Contribution as a member of the Working Committee in 5 Day's Virtual Seminar on Skill Development from 28 June to 2 July 2021 organized by Govt. VYTPG College Durg.
36. Contribution as a member of the Working Committee in International Faculty Development Program on Research and teaching methodology from 05 July to 11 July 2021 organized by Govt. VYTPG College Durg.
37. Participated in ONLINE WORKSHOP on Life Skills During the Pandemic: The New Normal by Govt. NPG College Raipur from 07 July - 13 July 2021.
38. Participated in the National e-Certificate Course on writing research papers on LATEX by Govt. VYTPG College Durg. from 12 July - 24 July 2021.
39. Participated in Online FDP on Income Tax by Govt. K D R College Rajnandgaon from 19 July - 25 July 2021.
40. Participated in Online Five-day Faculty Development Program on Recent Trends In Mechanical Engineering by IcfaiTech, The ICFAI University, Jaipur from 20 July - 24 July 2021.
41. Working member of Criteria 2.
42. Participated in Online Seven-day Faculty Development Program on Community Health and Nutrition" organized by Department of Home Science & I.Q.A.C., Govt. Nehru PG College, Dongargarh, From 23 August 2021 to 29 August 2021.
43. Participated in Online Five-day Faculty Development Program Jointly organised by Department of Computer Science and IQAC Govt. Nehru P.G College Dongargarh & IQAC - Shri Shankaracharya Mahavidyalaya Junwani Bhilai. from 01 September - 05 September 2021.
44. Participated in the Online Seven-days Faculty Development Program organised by IQAC DSV Sanskrit College Raipur from 13 September - 18 September 2021.

45. Contribution as a member of the Working Committee in 5 Days Orientation Program on Gender Equity from 27 September to 01 October 2021 organized by Govt. VYTPG College Durg.
46. Participated in the Online Two Week Faculty Professional Development Program on Recent trends of Green Technology for sustainable life organised by Integral University Lucknow from 02 November - 16 November 2021.
47. Contribution as a Organizing Secretary of 3 Days Conference on Luminescence and it's applications (NCLA 21) from 9 December to 11 December 2021 organized by Govt. VYTPG College Durg in association with Luminescence Society of India.
48. Observer in Apollo College Block 1 Vyapam Exam 19 December 2021.
49. Working member of Criteria 3 in place of Criteria 2 from 20 December 2021.
50. Observer in BIT Durg Vyapam Exam 26 December 2021.

LINK FOR COLLEGE ACTIVITY: [CLICK HERE](#)

Computer Proficiency:

- **Operating Systems:** MS-DOS, Windows
- **Software:** Expert *Origin Pro 8.5* (Advanced) *Sigma plot* (Advanced), *Chemdraw* (A Molecular Modeling and relating software), MATLAB.
- **MS OFFICE** , 2003, 2007, 2010,2013 (An Expert in Office *Power Point*, *Word* , *Excel*, *MS Access*, *Outlook & Visio*), *Internet - Adobe Photoshop*,

V. Current Research Activity: Soft Condensed State

Completed & Ongoing Research Projects and Consultancies

S.No	Title	Agency	Period	Grant/ Amount Mobilized (Rs Lakh)
1	Ferroelectric Liquid Crystals versus Fluorescent Dye Doped Ferroelectric Liquid Crystals	Department of Science and Technology, New Delhi India	Three Years (Jan 2014 to Jan 2017) Worked as Principal Investigator (PI)	26.34
2	Effect of Fluorescent Dye on pure Ferroelectric Liquid Crystals	University Grant Commission, New Delhi India	Three Years (Dec 2009 to 2012) Worked as Post Doctoral Fellow	
3	Quantum dots dispersed liquid crystal	Govt. VYTPG Autonomous College Durg	From April 2021- March 2023	5
4	DST FIST		From July 2025	89 Lakh

VI. PUBLICATIONS:

Research Papers in Refereed Journals:

57 Research Paper in Refereed Journals

Optical Materials, Results in Physics; Liquid Crystals; Journal of Molecular Liquids;; Phase Transitions; Applied Physics A; Molecular Crystals and Liquid Crystals; Journal of Non-Crystalline Solids; Ferroelectrics; Polymer Engineering and Science; Chemical Rapid Communications; Journal of Molecular Structure; Soft Materials; Physics and Chemistry of Liquids; Journal of Materials Science; Physica Scripta; AIP Conf. Proc.;

Publication Details:

- **Google Scholar ID :**
https://scholar.google.co.in/citations?hl=en&user=Cts__m8AAAAAJ
- **Scopus ID : 22938264700**
<https://www.scopus.com/authid/detail.uri?authorId=22938264700>
- **Mendeley:** <https://www.mendeley.com/profiles/dr-abhishek-kumar-misra/>
- **Web of Science Researcher ID : K-6827-2018**
Publons ID: <https://publons.com/researcher/1492217/dr-abhishek-kumar-misra/>
- **Research Gate:** https://www.researchgate.net/profile/Abhishek_Misra2
- **ORCID ID : 0000-0002-1256-807X**
- <https://vidwan.inflibnet.ac.in/profile/153600>
- **Google Citations: 4280**
- **Google Scholar h-index : 25**
- **Google Scholar i10-index: 112**
- **Scopus h-index: 16**

Papers Published and communicated in Journals (SCI)

GOOGLE SCHOLAR BASED : [CLICK HERE](#)

SCOPUS BASED: [CLICK HERE](#)

CITATIONS : 646

BOOK CHAPTERS AND EDITED BOOK

1. One Chapter were published in Book Published in New Delhi during corona Period Impact of Covid 19 Pandemic on Education in India by Tirath Ram, Abhishek Kumar Misra and Jagjeet Kaur in 2021.
2. Two Chapters were Published in Elsevier BOOK Mechanoluminescence in Organic and Inorganic Compounds Basic Concepts, Instrumentation, and Applications ISBN: 978-0-323-95301-6 Chapter 2 Advancements in instrumental setups for investigating mechanoluminescence by Tirath Ram, Neha Dubey, Vikas Dubey, Marta Michalska-Domanska, Neeraj Verma, Jagjeet Kaur, Abhishek Kumar Misra, Sangeeta Sahu and Shilpa Sharma. Chapter 9 Mechanoluminescence for reconstructing 3D ultrasonic field by Tirath Ram, Jagjeet Kaur, Abhishek Kumar Misra, Vikas Dubey, Neha Dubey and Neeraj Verma
3. Editor of Abstract Book of International Conference on Recent Trends in Science & Engineering (RTSE 2024) 8-10 Feb 2024 Published in 2024.

Research Papers: 58

1. Exploring the photoluminescence behavior of antiferroelectric liquid crystals through graphene oxide dispersion Shishir Shukla, Pankaj Kumar Tripathi, Ayushi Rastogi, E. Shakerzadeh, V. Singh, V.K. Mishra T. Yadav, M. Tiwari A.K. Misra Current Applied Physics Volume 75, July 2025, Pages 21-27
2. Abhishek Kumar Misra, Pankaj Kumar Tripathi, Kamal Kumar Pandey, Milan Singh Tarun Yadav and Rajiv Manohar Dielectric and FTIR investigation of the cholesteric liquid crystal with the doping of the polymer Macromolecular Symposia (WILEY) 21 Feb 2024
<https://doi.org/10.1002/masy.202300145>.
3. T Ram, N Verma, J Kaur, AK Misra, V Dubey, N Dubey, Marta Michalska-Domańska, J Saji and Ram Sagar Yadav Estimation of Spectroscopic parameters and TL glow curve analysis of Eu⁺³ activated Ca₂Y₂O₄ phosphors RSC advances Issue 38, 2023, Issue in Progress

4. Optimizing the luminescence efficiency of an europium (Eu 3+) doped SrY₂O₄ phosphor for flexible display and lighting applications

Neeraj Verma, Marta Michalska-Domańska, Tirath Ram, Jagjeet Kaur, Abhishek Kumar Misra, Vikas Dubey, Neha Dubey, Kanchan Tiwari, MC Rao

2023 RSC advances Volume 13 Issue 29 Pages 20217-20228 Publisher Royal Society of Chemistry

5. Intense green light emission and TL glow curve analysis of Tb³⁺ activated CaY₂O₄ phosphor

Tirath Ram, Neeraj Verma, Jagjeet Kaur, Abhishek Kumar Misra, Vikas Dubey, Neha Dubey, Ankush Vij, MC Rao

Luminescence 16 June 2023 <https://doi.org/10.1002/bio.4541>

6. Dielectric and electro-optical properties of ferric oxide nanoparticles doped 4-octyloxy-4' cyanobiphenyl liquid crystal-based nanocomposites for advanced display systems

P K Tripathi, A. Roy, Abhishek Kumar Misra, K.K Pandey, R. Manohar, Y. S. Negi , Liquid Crystal Volume 48, 2021 - Issue 7 Pages 923-934 2021 <https://doi.org/10.1080/02678292.2020.1821918>

7. Rohit Katiyar, Kaushlendra Agrahari, Govind Pathak, Tripti Vimal, Geeta Yadav, Kamal Kumar Pandey, Abhishek Kumar Misra⁴ · Atul Srivastava, Rajiv Manohar, Silver nanoparticles dispersed in nematic liquid crystal: an impact on dielectric and electro-optical parameters, Journal of Theoretical and Applied Physics 14, pages 237–243 (2020) <https://doi.org/10.1007/s40094-020-00374-5>

8. D.P. Singh, **Abhishek Kumar Misra**, K.K Pandey, Bhavna Pal, N Kumar, D. Singh, K. Kondratenko, B. Duponchel, P. Genevray, R. Douali, Spectroscopic, dielectric and nonlinear current–voltage characterization of a hydrogen-bonded liquid crystalline compound influenced via graphitic nanoflakes: An equilibrium between the experimental and theoretical studies

Journal of Molecular Liquids 302 (2020) 112537

9. **Abhishek Kumar Misra**, Kamal Kumar Pandey, Jagjeet Kaur Saluja, Rajiv Manohar, Electrical Conductivity of Cholesteric Esters and Their Homogeneous Mixtures

Sri JNPG College REVELATION: A Journal of Popular Science Vol. 4, No. 2 (2019), 14-20 ISSN : 2456-7698

10. P.K. Tripathi, **Abhishek Kumar Misra**, Aaradhana Roy, Kamal Kumar Pandey, Fanindra Pati Pandey, Shri Singh and Abhilasha Singh

Materials Research Express

Electro-optic switching and memory effect in suspension of ferroelectric liquid crystal and iron oxide nanoparticles

Material Research Express 6 (2019) 1050d2

11. Abhishek Kumar Misra, Aaradhana Roy, Kamal Kumar Pandey, Rahul Shrivastava, P.K. Tripathi, Bhupendra Pratap Singh and R. Manohar,

Influence of SiO₂ nanoparticles on the dielectric properties and anchoring energy parameters of pure ferroelectric liquid crystal

Dispersion Science and Technology 2020 41(14):1-7

<https://doi.org/10.1080/01932691.2019.1653195>

12. **Abhishek Kumar Misra**, K.K. Pandey , P.K. Tripathi, B.P. Singh and Rajiv Manohar
Dielectric Properties and Activation Energies of Cu: ZnO Dispersed Nematic Mesogen N-(4-methoxybenzylidene)-4-butaniline Liquid Crystal
Dispersion Science and Technology (2020) 41 (9) 1283-1290
<https://doi.org/10.1080/01932691.2019.1617164>
13. **Abhishek Kumar Misra** , B.P. Singh, S. Chandraker, K.K. Pandey, P.K. Tripathi, J.K. Saluja and R. Manohar
Faster Response and Lesser Threshold Voltage of Strontium Hardystonite (Sr-HT) Nematic Liquid Crystal: Photoluminescence and Optical Study
Optical Materials 93 (2019) 19-24
14. D. P. Singh, **Abhishek Kumar Misra**, A.A. Sudhakar, C. V. Yelamaggad and Michael Depriester
Transmuting the blue fluorescence of hekates mesogens derived from Tris (N- salicylidenaniline)s core via ZnS/ ZnS:Mn²⁺ semiconductor quantum dots dispersion
Journal of Luminescence 210 (2019) 7–13
15. K.K. Pandey, P.K. Tripathi, **Abhishek Kumar Misra** and R. Manohar
UV response on dielectric properties of nano nematic liquid crystal
Results in Physics 8 (2018) 1119–1123
16. K.K. Pandey, A.C. Dixit, M.S. Khan, P.K. Tripathi, **Abhishek Kumar Misra** and R. Manohar
Effect of UV light irradiation on the dielectric behaviour of liquid crystal/nano composite
Molecular Crystal and Liquid Crystals 656 (2017) 89-95.
17. **Abhishek Kumar Misra**, P.K. Tripathi and R. Manohar,
Fluorescent dye doped ferroelectric liquid crystal: An anchoring energy,electro-optical and fluorescence study,
Journal of Molecular Liquids 214 (2016) 418-421.
18. **Abhishek Kumar Misra**, P.K. Tripathi. K.K. Pandey, S. Manohar and R. Manohar, Polymer-doped ferroelectric liquid crystal: UV absorbance, fluorescence and electro-optical study
Phase Transitions 90 (2016) 227-235.
19. **Abhishek Kumar Misra**, P.K. Tripathi and Rajiv Manohar,
Fluorescent dye doped ferroelectric liquid crystal: An anchoring energy, electro-optical and fluorescence study,
Journal of Molecular Liquid 214 (2016) 418–421.
20. M. Pande, P.K. Tripathi, **Abhishek Kumar Misra**, S. Manohar, R. Manohar and S. Singh, Dielectric and electro-optical properties of polymer-stabilized liquid crystal system,

Appl. Phys. A (2016) 122:217.

21. K.K. Pandey, **Abhishek Kr Misra**, P.K. Tripathi and R. Manohar,
Nano doped weakly polar versus highly polar liquid crystal,
Applied Nanoscience DOI 10.1007/s13204-015-0423-9.
22. **Abhishek Kumar Misra**, P.K. Tripathi and R. Manohar, Fluorescence,
UV absorbance and dielectric study of fluorescent dye doped ferroelectric liquid crystal, **Journal of Non-Crystalline Solids** 412 (2015) 1–4.
23. **Abhishek Kumar Misra**, K.K. Pandey, P.K. Tripathi and Rajiv Manohar,
Dielectric and Electro-Optical Study of Fluorescent Dye Doped Ferroelectric Liquid Crystal, **Quantum Electrochemistry** 2 (2015) 1-4.
24. P.K. Tripathi K.K. Pandey, **Abhishek Kumar Misra**, S. Pandey and R. Manohar,
Dielectric behavior of ZnO nano particle doped nematic liquid crystal,
Ferroelectrics, 468 (2014) 132–142.
25. **Abhishek Kumar Misra**, P.K. Tripathi, K.K. Pandey and R. Manohar,
Electro-optical study of fluorescent dye doped ferroelectric liquid crystal,
Molecular Crystal and Liquid Crystals 591 (1) (2014) 25-33.
26. P.K. Tripathi **Abhishek Kumar Misra**, K.K. Pandey, S.P. Yadav and R. Manohar, Abnormal switching
behavior of liquid crystal composite,
Phase Transitions 86 (2013) 1241-1255.
27. **Abhishek Kumar Misra**, P.K. Tripathi and R. Manohar,
Goldstone and Soft Mode for Fluorescent Dye Doped Ferroelectric Liquid Crystal,
Journal of Non-Crystalline Solids 376 (2013) 7–11.
28. K.K. Pandey, **Abhishek Kumar Misra**, P.K. Tripathi S. P. Yadav and R. Manohar, Theoretical aspect of
nanonematic composite: energy functional and threshold voltage, **Molecular Crystal and Liquid Crystals** 582
(2013) 88-97.
29. **Abhishek Kumar Misra**, K.K. Pandey, P.K. Tripathi and R. Manohar,
Dielectric Relaxation of a Ferroelectric Liquid Crystal Showing Anomalous Behaviour Due to Polarization
Inversion,
AIP Conf. Proc. 1536 (2013) 933.
30. P.K. Tripathi, **Abhishek Kumar Misra**, S. Pandey and R. Manohar,
Low Frequency Dielectric Relaxation and Optical Behaviour of a Nematic Liquid Crystal 4-Methyl
(2'-Hydroxy, 4'-N-Hexadecyloxy) Azobenzene,
AIP Conf. Proc. 1536, (2013) 885.
31. P.K. Tripathi, **Abhishek Kumar Misra**, K.K. Pandey and R. Manohar,
Study on dielectric and optical properties of ZnO doped nematic liquid crystal in low frequency region,
Chemical Rapid Communication 1 (1) (2013) 20-26.
32. P.K. Tripathi, **Abhishek Kumar Misra**, S.K. Gupta and R. Manohar,

Improved Dielectric and Electro-Optical Parameters of ZnO Nano Particle (8% Cu²⁺) Doped Nematic Liquid Crystal,

Journal of Molecular Structure 1035 (2013) 371-377.

33. S. Dixit, **Abhishek Kumar Misra**, R. Manohar, A.K. Arora and T.K. Srinivasan, Enhancement in dielectric properties of Nematic Liquid Crystal by Gamma-Irradiation, **Molecular Crystal and Liquid Crystals** 571 (2013) 77-85.
34. **Abhishek Kumar Misra**, P.K. Tripathi, and R. Manohar, Changes in material parameters for dye doped ferroelectric liquid crystal, **Phase Transitions** 86 (2012) 977-986.
35. **Abhishek Kumar Misra**, P.K. Tripathi, and R. Manohar, Reduction of optical response time for fluorescent dye doped ferroelectric liquid crystal, **Journal of Molecular Liquids** 175 (2012) 67-71.
36. **Abhishek Kumar Misra**, S.P.Yadav, K.K.Pandey, R. Manohar, M.C. Varia and A.K. Prajapati, Dielectric Relaxation Study On H Shaped Liquid Crystal Dimer, **Physics and Chemistry of Liquids** 50 (2012) 605-616.
37. S.P.Yadav, K.K. Pandey, **Abhishek Kumar Misra**, P.K. Tripathi and R. Manohar, Molecular Ordering Phenomenon in Dye Doped Nematic Liquid Crystal, **Physica Scripta** 83 (2011) 035704-1-5.
38. S.P.Yadav, K.K. Pandey, **Abhishek Kumar Misra**, S. Dixit and R. Manohar, Molecular Dynamics In Weakly Polar Nematic Liquid Crystal Doped With Dye, **Canadian Journal of Physics** 89 (2011)661-665.
39. S.P.Yadav, K.K. Pandey, **Abhishek Kumar Misra** and R. Manohar, Electro Optical Behavior of Dye Doped Nematic Liquid Crystal, **Acta Physica Polonica** 119:6 (2011) 824-828.
40. R. Manohar, S.P.Yadav, **Abhishek Kumar Misra** and K.K.Pandey, Dipole Dynamics of Nano Doped Weakly Polar Liquid Crystal, **Molecular Crystal Liquid Crystals** 534 (2011) 57-68.
41. R. Manohar, K.K. Pandey, S.P.Yadav, A.K. Srivastava and **Abhishek Kumar Misra**, Surface anchoring effect on guest host ferroelectric liquid crystal response time -An Electro-optical investigation, **Philosophical Magazine** 90 (34) (2010) 4529-4539.
42. R. Manohar, **Abhishek Kumar Misra**, D.P.Singh, S.P.Yadav, P. Tripathi, A.K.Prajapati and M.C.Varia, Dielectric, Thermal and Optical Study of an Unusual Shaped Liquid Crystal, **Journal of Physics and Chemistry of Solids** 71 (12) (2010) 1684-1689.
43. R. Manohar, K.K.Pandey, A.K. Srivastava, **Abhishek Kumar Misra** and S.P.Yadav, Sign inversion of dielectric anisotropy in nematic liquid crystal by dye doping, **Journal of Physics and Chemistry of Solids** 71 (2010) 1311-1315.
44. R. Manohar, A. K. Srivastava and **Abhishek Kr. Misra**,

Electro-optical behaviour of dye doped FLC,

Soft Materials 8(1) (2010) 1-13.

45. R. Manohar, S.P.Yadav, K.K.Pandey, A. K. Srivastava and **Abhishek Kumar Misra**, Comparative study of dielectric and electro-optical investigation of pure and polymer composite of ferroelectric liquid crystal, **Journal of Polymer Research** 18 4 (2010) 35-441.
46. R. Manohar, **Abhishek Kumar Misra** and A.K. Srivastava, Modified dynamical equation for Dyed Nematic Liquid Crystals, **Physica B** 405 (2010) 1964-1968.
47. R. Manohar, **Abhishek Kumar Misra** and A.K. Srivastava, Polymer induced improvements in ferroelectric liquid crystal **Polymer Composites** (2010) 1-6.
48. R. Manohar, S. P. Yadav, A. K. Srivastava, **Abhishek Kumar Misra**, K.K. Pandey, A.C.Pandey and P.K.Sharma, Zinc oxide (1%Cu) nano particle in nematic liquid crystal: Dielectric and electro-optical study, **Japanese Journal of Applied Physics** 48 (2009) 101501.
49. R. Manohar, A. K. Srivastava, P.B.Chand, **Abhishek Kumar Misra**, J.P.Shukla, A.K. Prajapati and M.C.Varia, λ - Shaped Mesogenic Homologous Series With Polar Substituents: Synthesis, Characterization And Unusual Dielectric Behavior **Research Journal of Science Engg. and Technology** 1(2) (2008) 66-76.
50. **Abhishek Kumar Misra**, A. K. Srivastava, J. P. Shukla and R. Manohar, Dielectric and Electro-Optical parameters of two Ferroelectric Liquid Crystals, **Physica Scripta** 78 (2008) 065602-1-7.
51. A. K. Srivastava, **Abhishek Kumar Misra**, P. B. Chand, R. Manohar and J. P. Shukla, Dielectric and Electro-Optical Characterization of Dyed Ferroelectric Liquid Crystals, **Molecular Crystal and Liquid Crystals** 495 (2008) 546-563.
52. A.K. Srivastava, **Abhishek Kumar Misra**, J.P. Shukla and R. Manohar, Dielectric and electro-optical properties of dye doped ferroelectric liquid crystal, **Physics Letters A** 372 (2008) 6254-6259.
53. R. Manohar, G. Tripathi, **Abhishek Kumar Misra**, A. K. Srivastava, J. P. Shukla and A. K. Prajapati, Dielectric and optical study of 4-n-decyloxybenzylidene 4'-isopropylaniline exhibiting monotropic smectic A phase, **Macromolecule** Vol 4 Issue 1 (2008) 73-77.
54. R. Manohar, **Abhishek Kumar Misra**, A. K. Srivastava, P.B.Chand and J.P. Shukla, Dielectric Relaxation of a FLC Showing Anomalous Behaviour , **Soft Materials** 5(4) (2007) 207-218.
55. A.K. Srivastava, **Abhishek Kumar Misra**, P.B. Chand, Rajiv Manohar and J. P. Shukla, Ferroelectric Liquid Crystals versus Dyed Ferroelectric Liquid Crystals in SmC* Phase (2007)

Physics Letters A Vol. 371 490-498.

56. A. K. Srivastava, **Abhishek Kumar Misra**, P.B.Chand, R. Manohar and J.P. Shukla,
Shifting of Transition Temperature of Ferroelectric Liquid Crystals Due to Addition of Dye –An Optical and Dielectric Study
Journal of Physics and Chemistry of Solids 68 (2007) 523-529.
57. D. Pal, P. Mishra, **Abhishek Kumar Misra**, R. Manohar and J.P. Shukla,
Effect of Dichroic Dye on Dielectric and Optical Properties of a Nematic Liquid Crystal, **Research Journal of Physics I** (1) (2007) 10-18.

Papers presented in Conferences, Seminars, Workshops, Symposia

S.No	Title of the paper presented	Type of Presentation	Title of the Conference/Seminar	Organized By	Whether Conference/ international/ national/ state/regional/ college or university level
1	Refractive Indices, Order Parameter and Optical Transmittance Studies of a Nematic Liquid Crystal	ORAL	NLCS 2005 held at SILCHAR. 19-21 Dec 2005	Chemistry Dept of Assam University Silchar	National
2	The Dielectric Properties of Dichroic Dye Doped Nematic Liquid Crystal	POSTER	MRSI.2006 held at LUCKNOW 13-15 Feb 2006	Physics Dept Of Lucknow University Lucknow	National
3	Optical Properties and Order Parameter of Cholesteric Liquid Crystals and Their Mixtures and Their Mixtures	ORAL	NLCS2006 Held At Mysore 9-11 Oct 2006	Chemistry Dept Of Mysore University Mysore	National

4	Dielectric Relaxation Study of Ferroelectric Liquid Crystal and its Dye Doped Mixture	POSTER	Advance in Chemical and Materials Science held at LUCKNOW 11-12 May 2007	Physics Dept Of Lucknow University Lucknow	National
5	Anomalous Dielectric Behaviour of FLC Mixture	POSTER	NLCC 2007 Held At Siliguri 17-19 Dec 2007	Physics Dept	National
6	λ - Shaped Mesogenic Homologous Series With Polar Substituents: Synthesis, Characterization And Unusual Dielectric Behavior	POSTER	15th NCLC 2008 held at IISC BANGLORE 13-15 Oct 2008	Physics Dept	National
7	Dielectric and Electro-Optical Characterization of Dye Doped Ferroelectric Liquid Crystals	POSTER	16th NCLC held at LUCKNOW 26-28 Oct 2009	Physics Dept Of Lucknow University Lucknow	National
8	Dielectric and Electro-Optical parameters of two Ferroelectric Liquid Crystals,	ORAL	16th NCLC held at LUCKNOW 26-28 Oct 2009	Physics Dept Of Lucknow University Lucknow	National
9	Ferroelectric liquid crystal parameters doped with fluorescent dye	POSTER	NCLC held at Patiala 21-23 November,2012	Physics Dept Of Thapar University Patiala	National
10	Dielectric relaxation of a ferroelectric liquid crystal showing anomalous behaviour due to polarization inversion	POSTER	RAM 2013 held at Bikaner 01-02 FEB 2013	Govt College of Engg. and Technology Bikaner	International

11	An Apparatus of Increased Precision for the Measurement of Electro-Optical Parameter of Liquid Crystals	POSTER	UCOST SPONSERED Pauri Garhwal Uttarakhand 21-22 March 2013	Mathematics Department Govt. PG college Lansdowne Pauri Garhwal Uttarakhand	National
12	Dielectric and Electro-Optical Study of Fluorescent Dye Doped Ferroelectric Liquid Crystal	POSTER	NCME JAIPUR 22-24 Dec 2014	Physics Department SS Jain Subhodh PG College Jaipur	National
13	Nano Doped Weakly Polar Versus Highly Polar Liquid Crystal	POSTER	NCME JAIPUR 22-24 Dec 2014	Physics Department SS Jain Subhodh PG College Jaipur	National