


FACULTY PROFILE

Department: Engineering Physics

1. Personal Details

NAME	Dr.Abhilasha Singh	
DEPARTMENT	Physics	
DESIGNATION	Assistant Professor	
PHONE	+91-8980044760	
EMAIL ID	abhilashasingh@jssateb.ac.in	
Date of Joining (JSSATEB)	05/11/2016	

2. Experience

Total Experience in Years	Teaching: 8.8 Years	Industry: Nil	Research: 7 Years
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3. Qualifications

COURSES	SPECIALIZATION	Year of Award	INSTITUTION	UNIVERSITY
B.Sc.	Physics Honors	2003	Banaras Hindu University	Banaras Hindu University
M.Sc.	Nuclear Physics	2005	Banaras Hindu University	Banaras Hindu University
Ph.D.	Condensed Matter Physics (Liquid Crystals)	2011	Banaras Hindu University	Banaras Hindu University
Post Doc.	---			

4. Research & Publications

Papers Published in Web of Science indexed Journals	International: 14	National: 00
Papers Published in SCOPUS indexed Journals	International: 14	National: 00

Papers Published in other Journals	International: 00	National: 00
Papers Presented in Conferences / Symposium	International: 00	National: 00
Books / Book chapters Published:01	Name of the book chapter: Futuristic Trends in Physical Sciences Publisher:IIP Series Editors Year of Publication:2023	

5. Research Guidance

PhD Guide? Give field & University	Yes, Liquid Crystal	University: a. Visvesvaraya Technological University, Belagavi,
PhDs / Projects Guided	Nil	Projects at Master's Level: Nil Projects at Bachelor's Level: Nil

6. Grants

i. Funds Received (Projects) : Nil

ii. Patents: Nil

iii. Consultancy: Nil

7. Awards Received: Nil

8. Publications

i. International Journals

Sl. No.	Title of the paper	Name(s) of Author(s)	Name of the Journal	Volume No. Issue No. Year	WOS / Scopus / Both	Impact Factor	Publisher
1	Investigation of electro-optical and dielectric properties of pure and dispersed nematic liquid-crystal	Sadhna Tiwari, Saransh Saxena, Shivangi Tripathi, Govind Pathak, Abhilasha Singh, Sandeep Kumar and Rajeev Manohar	Liquid Crystals	pp: 1-11 Year: 2024	Both	2.4	Taylor and Francis
2	Thermodynamic model for electro-optical properties of antiferroelectric phase in mesogen W-330-3 and W-331-3	Abhilasha Singh	Soft Materials	Vol. No. 96 Issue No. 11-12 pp: 720-730 Year: 2023	Both	1.6	Taylor and Francis
3	Thermodynamic model to study the structural and electro-optical properties of chiral antiferroelectric smectic C phase exhibited by mesogenic homologous series 3FnHBM6(s) and W-316 mixture	Abhilasha Singh, Ayushi Rastogi and Shri Singh	Phase Transitions	Vol. No. 96 Issue No. 11-12 pp: 720-730 Year: 2023	Both	1.3	Taylor and Francis

4	Thermodynamic Model to Study the Phase Transition Properties of SmC _A * Phase in Antiferroelectric Mesogen W-358 Series	Abhilasha Singh, Ayushi Rastogi, R Shashidhar and Sudhaker Dixit	Indian Journal of Pure and Applied Physics	Vol. No. 60 Issue No. 8 pp: 695-699 Year: 2022	Both	0.7	NISCPR
5	Thermodynamic model to study the ferroelectric behaviour of lactic acid derivatives with keto linkage group	Abhilasha Singh, Shashidhar R and Ayushi Rastogi	Phase Transitions	Vol. No. 95 Issue No. 10 pp: 698-706 Year: 2022	Both	1.3	Taylor and Francis
6	A systemic review on liquid crystals, nanoformulations and its application for detection and treatment of SARS-CoV-2 (COVID-19)	Ayushi Rastogi, Abhilasha Singh, Kaustubh Naik, Archana Mishra, Shilpi Chaudhary, Rajiv Manohar and Avanish Singh Parmar	Journal of Molecular Liquids	Vol. No: 362 Issue No. 12 pp: 119795-1 – 119795- Year: 2022	Both	5.3	Elsevier
7	Phase transition properties of ferroelectric and antiferroelectric liquid crystals	Abhilasha Singh and Pankaj Kumar Tripathi	Journal of Philosophical Magazine	Vol. No. 101 Issue No. 12 pp: 1490-1509 Year: 2021	Both	1.855	Taylor and Francis
8	Application of thermodynamic model to study the ferroelectric properties of biphenyl alkyloxy benzoate homologous series of SSFLC	Shubha Singh, Shubham Mishra, Abhilasha Singh and Shri Singh	Phase Transitions	Vol. No. 92 Issue No. 9 pp: 816-823 Year: 2019	Both	1.026	Taylor and Francis
9	Electro-optic switching and memory effect in suspension of ferroelectric liquid crystal and iron oxide nanoparticles	Abhishek Kumar Misra, Pankaj Kumar Tripathi, Kamal Kumar Pandey, Fanindra Pati Pandey, Shri Singh and Abhilasha Singh	Materials Research Express	Vol. No. 6 Issue No. 10 pp: 1050d2 Year: 2019	Both	1.449	IOP
10	Thermodynamic model for the electro-optical and structural properties of Sm CA* phase in antiferroelectric liquid crystal MHPOBC	Abhilasha Singh and Shri Singh	Journal of Materials Chemistry	Vol. No. 21 Issue No. 6 pp:1991-1996 Year:2011	Both	5.047	Royal Society of Chemistry
11	Thermodynamic model for the description of smectic C* and smectic A – smectic C* phase transition Properties	Abhilasha Singh and Shri Singh	Phase Transitions	Vol. No.83 Issue No.3 pp:205-222 Year:2010	Both	1.026	Taylor and Francis
12	Effect of pressure on spontaneous polarization and tilt	Abhilasha	International Journal	Vol. No.23			

	angle in ferroelectric liquid crystal DOBAMBC	Singh and Shri Singh	of Modern Physics B	Issue No.8 pp:2139-2148 Year:2009	Both	0.863	World Scientific
13	Application of a Generalized thermodynamic model to study of the ferroelectric properties of DOBAMBC and DOBA-1-MPC	Abhilasha Singh and Shri Singh	Liquid Crystals	Vol. No. 35 Issue No. 6 pp: 727-736 Year: 2008	Both	2.636	Taylor and Francis
14	Phase transitions in ferroelectric liquid crystals	Shri Singh, Avanish Singh Parmar and Abhilasha Singh	Phase Transitions	Vol. No. 81 Issue No. 9 pp: 815-855 Year: 2008	Both	1.026	Taylor and Francis

ii. National Journals: Nil

iii. Conferences: Nil

iv. Workshops /Conferences Attended

Sl. No.	Name of the workshop / Conference	Organiser	Date
1	Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India@2024	The Institute of Science, Dr. Bhabha State University	28 th – 29 th February 2024
2	National Conference on Liquid Crystals (NCLC 2018)	Centre of Materials Science, University of Allahabad, Uttar Pradesh	19-21 st December 2018
3	28th National Conference on liquid crystals	Department of Chemistry, Assam University, Silchar, Assam in association with Indian Liquid Crystal Society, Bangalore	21 st -23 rd December 2021 (Oral), Mumbai

v. Workshops / Conference (Orgained): Nil

vi. Conference Attended (those sponsored by AICTE / ISTE /IETE /TEQIP or any other sponsoring body)

Sl. No.	Name of the workshop / Conference	Organiser	Date
1	FDP on “Sustainable Development Goals”	Department of Management Studies, JSSATE, Bengaluru	28 th – 29 th June 2024
2	FDP on “Applied Physics in VTU Curriculum”	Department of Basic Sciences, Cambridge Institute of Technology, Bengaluru	15 th – 19 th May 2023
3	FDP on “Inculcating Universal Human Values in Technical Education”	AICTE, New Delhi	26 th – 30 th September 2022
4	International e-Conference on “Applied Materials and Technology-2020”	Department of Physics, KLE Society’s S Nijalingappa College, Bengaluru, Karnataka	9-10 th October, 2020

5	FDP on “Smart Materials and Their Emerging Technologies (SMET-2019)	Department of Physics, BMS Institute of Technology and Management, Bengaluru, Karnataka	26-31 st July, 2019
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9. Details of NPTEL / COURSERA courses completed

Sl. No.	Name of the subject	Organized by	Date of completion / Award	Grade / Marks
1	Solid State Physics	NPTEL	October 2021	76%
2	Solar Photovoltaics Fundamentals, Technology and Applications	NPTEL	December 2020	86%
3	Semiconductor Physics	Coursera	27.05.2020	88%
4	Numerical Methods And Simulation Techniques For Scientists And Engineers	NPTEL	17.06.2020	64%

10. Membership of Professional Bodies: Nil

11. Any other information you will like to share about your professional experience

Dr Abhilasha Singh
Assistant Professor of Physics
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