

Personal Profile

Dr. Ashok A. Mistry (Professor & Head)
Department of Physics
Anand Niketan College, Anandwan, Warora

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Name : Ashok Abani Mistry

Nationality : Indian

Date of Birth : 13/12/1977

Designation : Professor & Head

Address for Correspondence : Department of Physics
Anand Niketan College
Anandwan - Warora
442 914
Mob. No. 9421730625
Email: ashok.mistry54@gmail.com

Educational Qualification: M.Sc. (Physics), Ph.D. UGC-SET.

Recognition: Member of BOS (Gondwana University Gadchiroli)

Other Qualification: Recognized guide for Ph.D. of Gondwana University, Gadchiroli
in the subject of Physics.

Number of Student Registered for Ph.D.: (07)

Number of Student Ph.D. Submitted: (01)

Number of Ph.D. Thesis Evaluation: 02

Research Publication (Scopus/SCI/SCIE indexed Journals): 16

Published Patents: 01

Design Right granted (Patents): 01

Field of Specialization: Ultrasonics and Luminescence.

Research Projects completed - Minor Research project Funded by UGC, (WRO),
Pune (2016-2018).

Teaching experience:

- UG - 21 Years
- PG - 9 years

Training/ Workshop/ Refresher / Orientation

- Successfully completed orientation programmed sponsored by UGC Academic Staff College RTM Nagpur Uni., Nagpur on dated 9thOct. to 5thNov. 2007.
- Successfully completed Refresher Course sponsored by UGC Academic Staff College RTM Nagpur Uni., Nagpur on dated 22th Feb. to 14th March 2010.
- Successfully completed Refresher Course sponsored by UGC Academic Staff College, RTM Nagpur Uni., Nagpur on dated 21stNov. to 11thDec. 2013.
- Successfully completed Short Term Course sponsored by UGC Academic Staff College, RTM Nagpur Uni., Nagpur on dated 19th Nov. to 24th Nov. 2018.
- Successfully completed Short Term Course sponsored by UGC Academic Staff College, SGB Amravati Uni. Amravati on dated 17th June to 22th June 2019.
- Successfully completed Two days Capacity Building programme on “**Understanding the Linkages between School& Higher Education Curriculum Framework**” jointly organized by NCERT & ABRSM held on July **20-21 2024** at NCERT campus, New Delhi
- **As an organizing Secretary**, successfully completed **international conference** on “Material & Applied Science for Society (**MASS-2024**)” organized by Department of Physics on dated 30 &31, 2024.

Research Publications

Sr.No.	Title of Research Paper	<i>Journal and its Issues in which Published</i>	Year
01	Acoustic and excess parameters studies on interaction in ternary liquid mixtures using ultrasonics technique.	Journal of Science Information (JSI Vol.2(1) pp. 27-33, ISSN: 2229-5836	2011
02	Comparison between experimental result and theoretical prediction using Flory's theory for the binary liquid mixtures	Advances in Applied Science Research, Pelagia Research Library, 2(6), pp. 70-77, ISSN: 0976-8610	2011
03	Acoustical Studies on ternary mixtures of toluene in cyclohexane and nitrobenzene at 308K using ultrasonic technique	Journal of Chemical and Pharmaceutical Research, Vol.4 (1), pp. 170-174, ISSN-0975-7385.	2012

04	Thermo-acoustical molecular interaction studies in ternary liquid mixtures using ultrasonic technique at 303K.	Adv. Appl. Sci. Res., 4(2), 54-59. ISSN-0976-8610	2013
05	Thermo-acoustical and Non-linear molecular interaction studies in ternary liquid mixtures at 298K	IOSR Journal of Applied Physics (IOSR-JAP), 1-3, ISSN: 2278-4861.	2014
06	Acoustical & thermo dynamical study of Toluene in Cyclohexane & nitrobenzene at 293K, 298K and 303K” using Ultrasonic Technique transparent tin oxide thin film	Journal of pure applied & industrial physics, 4(1), 21-28. ISSN: 2229-7596	2014
07	Studies of acoustic and thermodynamic properties of aqueous sodium hydroxide and Dimethyl sulfoxide system at 303.15K and at frequency 4MHz.	IJSR, ISSN (Online) 2319-7064, Impact Factor 4.438.	2015
08	Thermo-Acoustic interaction of aqueous LiOH.H ₂ O and 1,4 Dioxane at different temperatures.	AJANTA, ISSN-2277-5730, Volume-VIII (1),104-109, Impact Factor 5.5. UGC Listed Journal	2019
09	Molecular interaction of aqueous LiOH.H ₂ O in DMSO at different temperatures.	Research Journey, 2348-7143, Special Issue. Impact Factor 6.621. ISSN-2348-7143 UGC Approved Journal	2019
10	Ultrasonic study of molecular interaction in the mixture of aqueous potassium hydroxide with N-Dimethyl Formamide at different temperatures.	TROI, 2393-8374, Vol.6 (1), 1021-1025. ISSN-2393-8374(Print), ISSN-2394-0697(Online). UGC Approved Journal (Thomson Reuters)	2019
11	Study of molecular interaction of Pentanol and n-Heptane using ultrasonic technique at different temperatures.	Int. Res. J. of Science & Engineering, 2020; Special Issue A7: 201-205 SJIF Impact Factor 6.68 ISSN:2322-0015	2020
12	Thermodynamic Study of Binary mixture of Butanol and n-Heptane at Different	Int. Res. J. of Science & Engineering, 2020; Special Issue A7: 201-205 SJIF Impact Factor	2020

	Temperatures and Concentration.	6.68 ISSN:2322-0015	
13	Study of density, ultrasonic velocity and viscosity for binary liquid mixture of Hexanol and n-Heptane at different temperatures	Parishodh Journal Volume IX, Issue III, ISSN NO:2347-6648	2020
14	Determination of thermo-acoustic parameters of binary mixture of Propanol and n-Heptane at different temperatures (298.15,303.15 & 308.15 K)	Parishodh Journal Volume IX, Issue III, ISSN NO:2347-6648	2020
15	Acoustic behavior of Aqueous lithium hydroxide with dimethyl foramide at different temperatures using Pulse Echo technique	Int.Res.J. of Science & Engineering, Special Issue A10 ISSN-2322-0015	2020
16	Thermodynamical studies on ternary mixture of sodium hydroxide in aqueous medium & 1,4 dioxane using Ultrasonic Interferometer techniques at different temperatures	Int.Res.J. of Science & Engineering, Special Issue A10 ISSN-2322-0015	2020
17	Thermo-Acoustical and Excess Parameters in Ternary Mixture of Containing Aqueous KOH in Dimethyl sulfoxide at different temperatures	International Journal of Scientific Research in Science and Technology UGC Journal No.64011 ISSN-2395-6011	2021
18	Thermo Acoustic study of Different Parameters for Ternary Mixture of Potassium Hydroxide & 1,4 Dioxane Using Ultrasonic Interferometer	International Journal of Scientific Research in Science and Technology UGC Journal No.64011 ISSN-2395-6011	2021
19	Analysis of the Lift-OFF and Further motion of a Rocket.	International Journal of Researches in Biosciences, Agriculture and Technology A Double –Blind Peer Reviewed & Refereed Journal Issue(X) Vol (II)	2022
20	Excess thermo-acoustical parameters in ternary mixture containing aqueous sodium hydroxide and Dimethyl foramide	International journal of Advanced research in Science, Communication and Technology (IJARSCT)	2023

	at different temperatures	Vol. 3 Issue	
21	Synthesis and study of luminescence properties of a deep red– emitting phosphor $K_2LiAlF_6:Mn^{4+}$ for plant cultivation	Received: 29 August 2023 Revised: 26 October 2023 Accepted: 1 November 2023 Luminescence Willey (Scopus)	2023
22	Synthesis and Study of Optical Properties of Dy^{3+} Doped Yellow Emitting Fluoroapatite for White - LED Applications	Journal of Physics: Conference Series (Scopus)	2023
23	Luminescence in $NaCa_2Mg_2V_3O_{12}$ garnet	AIP Conference Proceeding (Scopus)	2024
24	Synthesis of Tb doped $NaYF_4$ crystals by using solid state metathesis with different concentrations of Tb	AIP Conference Proceeding (Scopus)	2024
25	Synthesis and study of luminescence properties of a deep red–emitting phosphor $K_2LiAlF_6:Mn^{4+}$ for plant cultivation	Luminescence 39 (2), e4629	2024
26	Synthesis and luminescence properties of intensely red-emitting $Na_5Y(WO_4)_4:Eu^{3+}$ phosphor	Journal of Materials Science: Materials in Electronics 35 (5), 336	2024
27	Synthesis and study of structure and optical properties of RE^{3+} ($RE = Sm^{3+}$ and Tb^{3+}) activated $Ca_8NaBi(PO_4)_6F_2$ orange-red and green emitting	Journal of Materials Science: Materials in Electronics 35 (5), 355	2024
28	Synthesis and study of optical properties of a Gd^{3+} -doped $NaYF_4$ phosphor for phototherapy lamp application	Luminescence 39 (4), e4736	2024

29	Luminescence characterization of rare earth (RE= Tb, Dy, Eu) ions activated Ca ₈ NaGd (PO ₄) ₆ F ₂ halo phosphor synthesis by modified Pechini method	Journal of Materials Science: Materials in Electronics 35 (11), 1-20	2024
30	Study of optical properties of Sr ₁₀ (PO ₄) ₆ F ₂ apatite kind phosphor prepared by co-precipitation method for W-LED applications	Journal of Materials Science: Materials in Electronics 35 (18), 1259	2024
31	Synthesis and investigation of the optical characteristics of RE ³⁺ activated Ca ₂ Li ₂ Si ₂ O ₇ (Rare earth = Eu, Tb) phosphor for W-LED application	Chemical Physics Impact (Elsevier) Chemical Physics Impact 9 (2024) 100752	2024
32	Photoluminescence Analysis and Judd–Ofelt Studies in Sr ₂ MgSi ₂ O ₇ : Sm ³⁺ Phosphor	Brazilian Journal of Physics, (Springer US)	2025
33	Spectroscopic Properties and Judd–Ofelt Analysis of Ca ₂ La ₃ (SiO ₄) ₃ F:Eu ³⁺ Phosphor	Journal of Electronic Materials (Springer US)	2025
34	Fluorescence Spectra and Optical Transition Properties of Eu ³⁺ -Doped Ca ₃ NbGa ₃ Si ₂ O ₁₄ Phosphor	Journal of Electronic Materials (Springer US)	2025
35	Luminescent properties of NaMg ₆ SiO ₈ :Eu ³⁺ , Tb ³⁺ phosphor for W-LED applications	Optik (Elsevier)	2025
36	Structural and spectroscopic properties of Ca ₂ La ₃ (SiO ₄) ₃ F:Dy ³⁺ phosphor	Applied Physics A Material Science & Processing	2025

Papers Published in Conference Proceedings

Sr.No.	Title of Research Paper	Published in Conference Proceedings	Year
01	Molecular Interactions studies in ternary liquid mixtures using ultrasonics technique at 308K	National Conference on Synthesis and Characterization of advanced Materials organized by Dept. of Physics, Janata Mahavidyalaya Chandrapur, ISBN: 978-93-81660-32-4	2011
02	Ultrasonic studies of molecular interaction in ternary liquid mixtures at 308K	National Conference on Advancement in Material Science and Nanotechnology- AMSAN-2013 organized by Chouksey Engineering College, Bilaspur (C.G).	2013
03	Molecular interaction Studies in Ternary liquid mixtures using Ultrasonic Technique at 308K	Conference on Material Characterization and their Applications organized by Dept. of Physics, Anand Niketan College, Warora. ISSN: 2229-5836	2014
04	Ultrasonic Studies in Ternary Mixtures of Aqueous Sodium Hydroxide and Dimethyl Sulfoxide at 298K	National Conference on Novel Synthesis of Advanced Materials and Their Applications organized by Dept. of Physics, Arts, Commerce and Science College, Maregaon. ISBN 978-81-930894-1-5	2015

Chapter in Books /Books Edited /Books / Research Books

Sr.No.	Chapter in Books /Books Edited /Books / Research Books	Editor / Publisher	Year
01	S.Y. B. Sc. SEM-III Physics (Paper I & II)	G. C. Publishers ISBN: 978-93-82962-94-6	2015

02	A textbook of Physics for B.Sc. Sem-III Paper-I Thermal Physics	M/s.Rajni Prakashan. ISBN:978-93-82683-37-7	2018
03	A textbook of Physics for B.Sc. Sem-I Paper-I Mechanics and Relativity	M/s.Rajni Prakashan. ISBN:978-93-82683-45-2	2018
04	A textbook of Physics for B.Sc. Sem-IV Paper-I Waves, Acoustics and Laser	M/s.Rajni Prakashan. ISBN:978-93-82683-57-5	2018
05	A textbook of Physics for B.Sc. Sem-IV Paper-II Optical Physics	M/s.Rajni Prakashan. ISBN:978-93-82683-54-4	2018
06	Book Chapter "An Overview of Non-Linear Optical Single Crystals"	Book "Bulk Crystal Growth: Techniques & Technologies" DNA Publication	2020
07	PHYSICS B.Sc. Semester V (CBCS) Paper-I & Paper-II	Himalaya Publishing House ISO 9001:2015 Certified	2023
08	PHYSICS B.Sc. Semester I[NEP-2020] (CBCS) Mechanics	Himalaya Publishing House ISBN:978-93-6557-423-4	2025
09	PHYSICS B.Sc. Semester II [NEP-2020] (CBCS) Magnetostatics & Electromagnetic Waves	Himalaya Publishing House ISBN:978-93-6557-312-1	2025

Active Participation & attended Workshop/ Seminar/ Conference

S. No.	Name of Conference/ Workshop/ Seminar	Year
01	Vidarbha university Physics teachers' association student's seminar in physics	2006
02	Vidarbha university Physics teachers' association student's seminar in physics	2007
03	University level Chemistry Teachers Seminar	2008

04	Seminar on Advance material and Advance techniques	2009
05	Vidarbha university Physics teachers' association student's seminar in physics	2010
06	National seminar on Ethics and Human Values	2010
07	National conference on Novel materials and their applications	2010
08	Seminar competition in Physics	2010
09	National conference on nano science and technologies	2011
10	National conference on Nano science and Nanotechnology	2011
11	National Conference on Synthesis & Characterization of Advance materials	2011
12	National conference on Recent trends in Material synthesis & characterization	2011
13	National seminar on materials preparation and characterization	2011
14	One day workshop on discussion of syllabus of B.Sc. Physics	2011
15	National Conference on Cleaner production for Greening industries: Steps to Sustainability	2012
16	Technologies in Engineering and science for energy applications	2012
17	Scientific and technical wording commission	2012
18	Workshop on Scope of syllabus of B.Sc. I & II nd semester in Physics	2012
19	Ultrasonic studies of molecular interaction in ternary liquid mixtures at 308K	2013
20	National Conference on Material Characterization and their applications of Advanced Materials.	2014
21	International conference on Advances in Engineering and Technology	2014
22	National Conference on Novel Synthesis of Advanced Materials and their applications.	2015
23	National seminar on Futuristic Materials (NSFM-2015)	2015
24	International Symposium on Ultrasonics	2015
25	One day University Level workshop on Introduction to Research Methodology	2016
26	National seminar on Awareness and Applications of the Synchrotron Beamlines	2016
27	One day University Level workshop on Scope of Syllabi	2017
28	One day workshop on discussion syllabus in all subjects of science faculty	2017
29	State level One workshop on Maharashtra University ACT2026 &CBCS	
30	One day University Level workshop on PBAS, API and New UGC Regulations & Amendments	2018
31	One day University Level workshop on NAAC Revised Accreditation Framework and Guidance for SSR Preparation	2018
32	International conference on Multifunctional Materials ICMAM	2018
33	Two days National Seminar on Modern Perspective in Life Sciences	2018
34	UGC Sponsored National conference on Emerging Trends in Science	2019
35	National conference on Recent Advances in Science and Technology	2019
36	International conference on Energy and Environmental Challenges	2019
37	National conference on Emerging Trends in Engineering, Science and Technology	2019
38	Webinar on National Education Policy (2020)	2020
39	International e-Conference on Role of Science and Technology in Sustainable Development- (ICRSTDS-2020)	2020

40	National conference on Innovative Science and Technology for Sustainable Future (NCISTSF-2020)	2020
41	National conference on Recent Trends in Mathematics, Physical, Chemical, Library and Life Sciences	2020
42	Online Workshop on Recent NAAC Methodology for Assessment and Accreditation Process	2020
43	Webinar on Virtual Labs: Effective Tools for Teaching and Learning	2020
44	One day workshop on NAAC Related quality Assurance Strategies	2020
45	National Level Webinar on Introduction to Intellectual Property Rights (IPR) and Patent Process	2020
46	National Level Webinar on Solar Technology	2020
47	International e-Conference on Recent Advances in Material Science and Nanotechnology (RAMAN-2021)	2021
48	Online International Conference on Smart Materials: Application to Devices	2021
49	National Level One Week FDP on Research Methodology	2021
50	AICTE Sponsored Online One Week Short Term Training Programme (STTP) on Rural Development: Opportunities and Role of HEIs	2021
51	International conference on Nanomaterial's and Nanotechnology (ICONN-2021)	2021
52	International e-conference "Innovations in Science, Technology, Humanities, Management and e-commerce for sustainable Rural Development (ANCIC-2022)	2022
53	International journal of Advanced research in Science, Communication and Technology (IJARSCT)	2023
54	National level Conference on NEP 2020:	2023
55	International Interdisciplinary conference on Tourism, Bio-diversity Conservation and Development	2023
56	National Conference on "Emerging Trends in Science and Technology for Sustainable Development".	2024
57	Multidisciplinary International conference on "Environment Challenges in Global Scenario".	2024
58	One day University Level workshop on Scope & Limitations of B.Sc. Semester I & II	2024
59	National Conference on "Frontiers in Science and Technology -2024"	2024
60	National Conference on "Recent Multi- disciplinary Advances in Research & Conservation"	2025

Extension Programme

- Attended NSS camp organized by A. N. College, Warora on dt. 23rd Dec. 2005 to 1stJan. 2006 at Bodkha
- Attended NSS camp organized by A. N. College, Warora on dt. 23rd Dec. 2006 to 1stJan. 2007 at Mulgavhan.
- Attended Uni. level NSS camp organized by A. N. College, Warora on dt.7th to 16th oct.2006 at Somnath, Ta. Mul, Dist. Chandrapur
- Attended NSS camp organized by A. N. College, Worora on dt. 15th to 24th Dec. 2007 at Chikni.

- Active participation in Eye camp jointly organized by J.J. hospital Eye care society Mumbai & Anandwan, Worora on dt.6th to 15th Dec. 2007.
- Actively participated in NSS camp jointly organized by A. N. College, Worora and ZP & PS Warora and Gram Panchayat Bhatala from 23rd Sept to 2nd Oct 2008 at Bhatala.
- Attended NSS camp organized by A. N. College, Worora from 23rd Dec 2008 to 1st Jan 2009 at Soit.
- Attended NSS camp organized by A. N. College, Worora from 23rd Dec. to 30th Dec 2009 at Waygaon.
- Attended NSS camp organized by A. N. College, Worora from 23rd Dec. to 30th Dec 2010 at Jamni.
- Active participation in Eye camp jointly organized by J.J. hospital Eye care society Mumbai & Anandwan, Worora on dt. 22nd to 30th Dec. 2010.
- Active participation in Eye camp jointly organized by J.J. hospital Eye care society Mumbai & Anandwan, Worora from 9th to 18th Dec 2011.

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