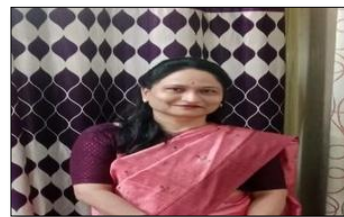


FACULTY PROFILE



❖ Basic Information

- **Name:** Dr. Nita Bharat Shinde
- **Designation:** Assistant Professor
- **Department:** Physics
- **Area of Specialization:** General Physics
- **VIDWAN ID-**<https://vidwan.inflibnet.ac.in/profile/672638>
- **ORCID ID**
<https://orcid.org/0009-0001-1645-2824>
- **Google Scholar ID-**
<https://scholar.google.com/citations?user=ud1mI7MAAAAJ&hl=en>

- ❖ **Educational Qualifications:** : M.Sc., Ph.D., MH-SET

❖ Teaching Experience:

Total Teaching Experience: 17 Years

❖ Research Experience

- Total Research Experience: 5 years
- Research Guidance (M.Phil/Ph.D. Guided): Nil
- Areas of Research Interest: Luminescence, Carbon Quantum Dots, Bioderived Carbon Quantum Dots, Nanomaterials.

❖ Research Publications

(A) Research Papers in National/ International Journals

- Spectroscopic analysis of color-tunable $\text{LiLaMgWO}_6:\text{Ln}^{3+}$ ($\text{Ln}=\text{Sm}, \text{Tb}$) phosphor for opto-electronic applications, Journal of Luminescence, Volume 287,

2025, Page No.121501, ISSN 0022-2313,

<https://doi.org/10.1016/j.jlumin.2025.121501>.

- Effect of Ce³⁺ ion on Dy³⁺ or Mn²⁺ in KMgSO₄Cl synthesized by centrifuge method, Journal of Luminescence, Volume 172,2016, Pages 131-138, ISSN 0022-2313, <https://doi.org/10.1016/j.jlumin.2015.12.005>.
- “Photoluminescence enhancement in Na₃SO₄Cl: X (X= Ce³⁺, Eu³⁺ or Dy³⁺) material”, J. of biological & chemical Lumi., Volume30, Issue6, September 2015,Pages 898-903, <https://doi.org/10.1002/bio.2840>Digital Object Identifier (DOI)
- Thermoluminescence characteristics of Na₃ SO₄ Cl:X (X=Ce, Dy, Mn) phosphor. Radiation Effects and Defects in Solids, 169(4), 361–367. <https://doi.org/10.1080/10420150.2013.860978>
- “Photoluminescence and Spectroscopic studies of Ce³⁺ - Mn²⁺ in Na₃SO₄Cl Chlorosulphate Phosphor”. Bionano Frontier,5(2-III) (2012)61.
- “Comparative study of Ce³⁺ activated Chlorosulphate Phosphors”. Recent research in Science and Techno. ISSN: 2076-5061, 4 - (8) (2012)128, ISSN: 2076-5061.
- Eco friendly LED lights for organizations, research journal volume no 19, No(2) 2023, ISBN 0974-0317 Research journal. L.A.D. and Smt. R.P. college for women, Nagpur
- Synthesis Route Techniques for the Development of Bio-Derived Carbon Quantum Dots (CQDs), Emerging Frontiers in Science and Technology: Integrating Physics, Materials, and Energy Systems, ISBN- 978-93-49938-40-3, Year: 2026, DOI: 10.5281/zenodo.18668885.

(B) Books / Book Chapters

- B.Sc. Physics (Communication Systems General electives semester-IV Based on syllabus of R.T.M. Nagpur University, Nagpur ISBN-978-93-48359-48-3
- B.Sc. Indian Astronomy (for all branches), Based on syllabus of R.T.M. Nagpur University, Nagpur, ISBN-978-93-48359-80-3
- B.Sc. Physics (Physics of Daily life, General electives semester-I Based on syllabus of R.T.M. Nagpur University, Nagpur, ISBN-978-93-48359-08-7

- B.Sc. Physics (DSC-I and DSC- II, Major semester-II & DSC Minor semester IV)
Minor Based on syllabus of R.T.M. Nagpur University, Nagpur ISBN- ISBN-978-93- 6409-211-1
- B.Sc. Physics (DSC-I and DSC- II, Major semester-I& DSC Minor semester III)
Minor, Based on syllabus of R.T.M. Nagpur University, Nagpur ISBN-978-93-6409-211-1
- B.Sc. Physics (Digital Systems, General electives semester-III, Based on syllabus of R.T.M. Nagpur University, Nagpur,ISBN-978-93-48359-05-D

(C) Conference / Seminar Proceedings

- Published a research paper in international conference at Amravati, “ A comparative review on Nano crystalline Cds,Ag₂S and Cds-Ag₂S thin films synthesized by chemical bath deposition and modified chemical bath deposition method.

❖ Research Projects

- Minor Research Projects:

S.N.	Title	Funding Agency:	Year	Amount Sanctioned
1	Development of Bio Derived Carbon Quantum Dots (CQDs) For Emerging Applications	RTMNU, Nagpur, Research and Development cell	2025-26	3,00,000/- (Three Lakh Only)

❖ Orientation / Refresher Courses / FDPs Attended

- Participated in one-day workshop on Restructuring Physics TYBSc Practical syllabus Ahmednagar College of Ahmednagar,17 Jan. 2004.
- Participated in 2 days Faculty induction training Program at G.H. Raisori Academy for excellence, PvT Ltd Jalgaon 12-13, Sept 2009
- Attended 2 days FDP on Latest trend in teaching learning Process - A new approach, Dr. Babasaheb Ambedkars College of Engg. & Resenech, Hingha,

Nagpur,30-31 Dec. 2014

- Participated STTP on Research Methodology, Priyadarshini College of Engg., Nagpur 8&13 June. 2015.
- Participated in two weeks ISTE short term training Program Engg. Physics, Indian institute of Bombay at PCE, Nagpur, 8-16 Dec.2015.
- Participated in Use of ICT in education for online & blended learning MHRD
- Priyadarshini college of Engg Nagpur & IIT Bombay 2-10 July 2016.
- Participated in Research methodology & Statistics workshop, Dept of physics RTMNU, Nagpur 28 Nov- 3 Dec. 2016.
- Attended one-day workshop on NPTEL, Priyadarshini College of Engineering, Nagpur 24 Sep. 2016.
- Attended one day FDP Honoring Language Skill using language lab Priyadarshini College of Engg. Nagpur. (Humanities Dept),2018.
- Completed workshop on Train the trainers, learners Edge workshop, VMV commerce JMT Arts & JJP sci college Nagpur 07-12 Mar. 2022.
- Attended one week FDP &FIP at L.A.D. & Smt. R.P. College for Women, Nagpur, on student centric methodology and interactive teaching strategies using interactive tools 09-13 Oct. 2023.
- participated in 5 Days FIP and FDP organized by L. A. D. and Smt. R. P. College for Women, Nagpur, during 9th Oct to 13th Oct 2023.
- participated in online one week International workshop on “Nano-Engineering Science and Technology”, organized by Department of Chemistry and Department of Physics, Vidya Vikas Arts, Commerce and Science College, Samudrapur in Collabrations with MAK College, Hinganghat, District Wardha, Maharashtra State from 16th to 22nd October 2023.
- participated in one day National Symposium on NEP, A Global Perspective for HEI, organized by Manthan for Academia, Nagpur on 16th December 2023.
- participated in 5 Days, one week online national level FDP organized by Department of Physics., Yashwantrao Chavan College of Engineering, Nagpur, on “Advanced materials and Quantum technology” during 4th December to 9th December 2023.
- successfully completed the One Week Online Faculty Development Programme on “Fabrication and characterization of Nanomaterial for device application” organized by Malaviya Mission Center from 27th May – 01st June 2024.

- Participated in hands on workshop on Density functional theory of materials (DFTM) online organized by the Centre for Advanced Computational Research, New Delhi from 08 October - 18 October 2025.
- participated in a Five-Day FDP organized by L. A. D. and Smt. R. P. College for Women, Nagpur in collaboration with Y.C.C. Engineering, Nagpur, on AI in Research and Innovation, from 18 - 22 August 2025.
- Actively participated in an online workshop on “Rietveld Refinement” (9:00–10:00 pm) from 15 - 21 September 2025, organized by the Centre for Advanced Computational Research, New Delhi.
- Participated in the SEE workshop (SEE- Science Education Ecosystem 2025) at Tata institute of fundamental research center and Homi Bhabha Center for Science Education at Mumbai on invitation and fully funded by TIFR from 13 to 15th June 2025. Also visited condensed matter physics laboratory at TIFR Mumbai.
- participated in the online NEP 2020 orientation and sensitization program under the Malviya Mission Teacher Training Program (MM-TTP) organized by UGC-MM-TTP of RTMNU, Nagpur, from 16th March to 30th March 2025.
- Actively participated in the UGC-sponsored online 13 faculty induction programs (FIP) organized by the Malviya Mission Teacher Training Center of RTMNU, Nagpur, from 02nd January 2025 to 30th January 2025
- Participated online in the One- Day National Seminar on Artificial Intelligence – An Emerging Tool for Research in Science and Technology organised by Bhivapur Mahavidyalaya Bhivapur and Science College Pauni on 28th March 2025.
- Participated in Two Day IKS workshop on 21st & 22nd January 2026 organised by L.A.D. & Smt R.P. College for women, Nagpur
- Participated in the Two Day Faculty Workshop under Anusandhan National Research Foundation (ANRF) organised by VNIT , Nagpur on 1st and 2nd March 2026.

❖ **Papers Presented in Conferences / Seminars**

- “Comparative study of Ce³⁺ activated chlorosulphate phosphors”, Art and Commerce Girls College, Raipur, National conference on novel material and their applications - 16-17 Oct.2012

- Photoluminescence and spectroscopic studies of $Ce^{3+} \rightarrow Mn^{2+}$ in Na_3SO_4Cl Chlorosulphate, RTMNU, Physics Department, Nagpur, young Scientist award Meet Proceedings-2012
- Thermoluminescence in Na_3SO_4Cl : Eu, Dy phosphor prepared by WCM Method”, VMV Commerce, JMT Arts, and JP Science college, Nagpur. synthesis and Applications of Novel materials ISSN-2229-4554-1219.05 Oct 2013
- Photoluminescence and spectroscopic studies of $Ce^{3+} \rightarrow Mn^{2+}$ in Na_3SO_4Cl chlorosulphate”. Sevalal Mahila Mahavidyalaya, Nagpur, II nd world congress for man and nature-2012"Global change: Impact on Biodiversity, Culture& Technology, Vol-5(2-III) (2012)61-62, Nov 2012
- “Photoluminescence of Na_3SO_4Cl : Ce prepared by WCM and SSD Methods: A comparative Study”. SSE,s Amst,s Science College , Congress Nagar Nagpur, Nanomaterials, New Horision for betterment of mankind, proceedings- Feb 2013
- “Evaluation of trapping parameters in Na_3SO_4Cl : Mn chlorosulphate”, RTMNU, Physics Department,Nagpur, Ramanujan Coference , Nagpur, proceedings-2013.
- “Photoluminescence of $Na_6(SO_4)_2F Cl$: Eu^{3+} prepared by WCM, Arts Science and Commerce College Koradi, Nagpur, Novel synthesis of advanced materials, ISBN-978-93-82962-51-9.11 Oct 2014
- “Photoluminescence of $Na_6(SO_4)_2F Cl:X$ ($X=Ce^{3+}$) prepared by WCM”, RTMNU, Physics Department, Nagpur, Ramanujan Conference 2014-15, Nagpur. , proceedings- 2014.
- “Evaluation of trapping parameters in Na_3SO_4Cl : Ce phosphor”. Rani Durgawati vishwavidyalaya and Luminescence society of India, National conference of Luminescence and its applications, Jablpur. India, proceedings-2014.
- PL in $Na_6(SO_4)_2FCl$: Eu^{3+} phosphor synthesized by centrifuge method”, Dhote Bandhu Science college Gondia, Recent development in Science and Technology RDMST-2014, proceedings-2014
- Thermoluminescence Properties Of Cu Doped Na_3SO_4Cl Phosphor”. Nabira Mahavidyalaya, Katol., National conference on advanced materials held (NCAM-2014), ISBN-978981432-709, Mar. 2014
- Thermoluminescence Properties Of Cu Doped Na_3SO_4Cl Phosphor”. RTMNU ,Physics.Department,Nagpur, National Symposium for Research Scholors on Rescent

advances in Physics and Materials Science, (RAMPS -2014)Proceeding-2014

- “Investigation of photoluminescence in $\text{KMgSO}_4\text{Cl}:\text{Eu}^{3+}$ phosphor”. PES university Bengaluru , International Conference on luminescence and its Applications proceedings-Feb 2015
- “Synthesis and photoluminescence characteristics of $\text{KMgSO}_4\text{Cl}:\text{Cu}^+$ for near-UV white LEDs.” RTMNU , Nagpur, National Conference on luminescence and its Applications , Feb 2016.
- “Glow curve analysis of gamma-particles irradiated $\text{KMgSO}_4\text{Cl}:\text{Cu}^+$ phosphor.” RTMNU, Nagpur, National Conference on luminescence and its Applications - Feb 2016
- . “Photoluminescence in $\text{Na}_2(\text{SO}_4)_7\text{F}_6\text{Cl}:\text{Ce}^{3+}$ Chlorosulphate Phosphor” , Fergusson College Pune, Bhartiya Vigyan Sammelan and Expo Proceeding - May 2017
- Spectroscopic studies of Ce^{3+} in $\text{Na}_6(\text{SO}_4)_2\text{FCl}$ chlorosulphate phosphor.K.D.K. college of Engineering, Nagpur. AIP conference proceedings- 2018, Multi-dimensional role of basic sciences in advance technology ICMBAT-2018
- . “Luminescence study of Ce^{3+} and Dy^{3+} activated KZnSO_4Cl chlorosulphate phosphor., Department of Physics NIT Raipur AndDepartment of physics Govement N.S. College, Raipur, International conference on luminescence and applications, ICLA conference proceedings- Jan. 2019
- “Eco Friendly LED Lighting for Organizations ”National Conference on Clean Earth and Green Earth, L.A.D. & Smt .RP College for Women, Nagpur, FEB-2024
- “Synthesis and Spectroscopic Study of Novel Phosphor for LED Applications”, P. S. G. V. P. Mandal’s S. I. Patil Arts, G. B. Patel Science and S. T. K. V. Sangh Commerce College, Shahada, Nandurbar 425409, India, National Conference on Recent Innovations in science and Technology. (RIST-2024).
- participated and delivered an oral presentation and published an abstract at the International Conference on Innovations in Science for Sustainable Development (ICISSD-2025), organized by Smt. Narsamma Arts, Commerce and Science College, Kiran Nagar, Amravati, India, Research Committee and Department of Chemistry and Association of Chemistry Teachers (ACT), Mumbai, held on 19 & 20 March 2025.
- participated and presented research paper in International Conference on

Material Physics and Electronics for Sustainable Development (ICMPE) on 1-2 July 2024.

- Participated and delivered poster presentation and published an abstract at the Technological Advances in Science, Medicine, and Engineering (TASME)-2025 Conference (Hybrid mode), organized by Department of Physics and Environmental Science, University of Toronto Canada held on 5th & 6th July 2025.
- Participated in Bhartiya Vigyan Sammelan (BVS) submitted abstract held on 26th -29th of December 2025, at National Sanskrit University Tirupati.
- participated and presented research paper in national Conference on Material Physics and Electronics for Sustainable Development (ICMPE) on 1-2 July 2024.
- Participated and submitted abstract on “Synthesis Route Techniques for the Development of Bio-Derived Carbon Quantum dots (CQDs)” (online mode) one day national conference on innovations in science and technology, organised by Dada Patil college Karjat, District Ahilyanagar 7 March 2026.

❖ **Membership of Professional Bodies**

- IAPT(Indian Association of Physics Teachers)
- VIBHA (Vigyan Bharti)
- UWAAN

❖ **Awards / Recognitions**

- Received a MRP by RTMNU, Nagpur
- Consolation prize at UGC sponsored National Conference ,Gondia Education Society's Dhote Bandhu Science College, Gondia Dec-2014
- Granted a patent on ‘Synthesis and Characterization of Mn²⁺ activated Zn₄Al₂O₃₇ Nanophosphors’ by Government of India (2025).
- Registered a patent of design on Microreactor for Nanoparticles Synthesis.
- Resource Person, Hands on training on Colour Chromaticity Calculator for PL spectra of Phosphor, Anand Niketan College Warora, Dist. Chandrapur, August 2022.

- Conducted a session on Resume Writing at VMV Commerce, JMT Arts and JJP Science College, Nagpur 2021.
- Conducted workshop for B.Sc. II Year students on Physics Practical Workshop. at VMV Commerce, JMT Arts and JJP Science College, Nagpur 2021.
- Research Paper Reviewers for the Journal of Condensed Matter of the Condensed Matter Research Society.
- Delivered an invited talk online at 28th Annual TASME International conference 2024 on 6th July, Organized by University of Toronto, Canada, America.
- Referee for a paper of Ramanujan conference organised by Savitribai Phule Pune University.
- Chair the session for international conference held at Anandwan College, Warora on 31 and 1 January 2024
- Set up Physics laboratory for first year at G. H. Raisonni polytechnic Jalgaon. 2009- 2010.

❖ **Extension Activities / Community Engagement**

- Served as mentor in the Registration Committee for the collaborative activity of the Nutriwise Asia Cookery Book Contest, involving LAD College, SVK Shikshak Sanstha, and Jhankar Mahila Mandal, on 12 September 2025.
- Member of registration committee for international women 's day celebration programme 2025-26
- Teacher in charge for Turncoat competition in AURA 2025-26.
- Convenor for National space Day celebration of department of physics 2025-26.
- Convenor for selling of water sensor diya activity of department of physics- 2025
- Co- convenor for Shekdar memorial talk competition 2023-24
- Co- convenor for Shekdar memorial talk competition 2024-25
- Convenor for Alumina student connect programme 2025-26
- Convenor for National Science Day poster and slogan exhibition 2024-25
- Member of Winter -2025 college level examination.

❖ **E-Content / MOOCs / ICT Use, SWAYAM / NPTEL Courses**

- **YouTube Lectures:**

https://www.youtube.com/channel/UCMhAGfaD99S1IJNUX_ViQKg

<https://www.youtube.com/channel/UCcKVYMaZXH5mYmmht0j3e8g>

- **Google Classroom / LMS**

PHYSICS SEMESTER V & VI:

<https://classroom.google.com/u/2/c/NTA3Nzg2ODMxNTg0>

PHYSICS SEMESTER I & II :

<https://classroom.google.com/c/ODIwMDYwMjc3NzQx>

PHYSICS SEMESTER III & IV

<https://classroom.google.com/c/NzI5NTQ3MDQxMTcw>