CURRICULUM VITAE

MAHENDRA SHANTARAM SHINDE **Ph. D. [Physics]**

Career Objective:

To excel in the field of teaching & research and be a key team player in growth oriented esteemed organization within a challenging environment by dint of my academic knowledge, technical skills & research aptitude.

EDUCATIONAL QUALIFICATIONS

Course	Board/University	Year of Passing	Class
Ph.D.	North Maharashtra University	April 2013	Awarded
M.Sc	Pune University	2008	First class
B.Ed.	Pune University	2006	First class
B.Sc.	Pune University	2004	Distinction
HSC	Pune Board	2001	Second class
SSC	Nasik Board	1999	First class

Area of Interest:

- ✓ Nanotechnology
- ✓ CBD & MCBD methods
- ✓ Gas Sensing
- ✓ Nanoparticles

- ✓ Thin films

PG Recognition/Research Guide Details :
PG Recognition (22 Sep 2020 to 12 Dec 2044) and M. Phil Research Guide ship (22 Sep 202021 Sep 2028)By Paper & Research in Science (Sub:- Physics) with reference letter no. 16/140 Dated 16 Oct 2020.

Dissertation Title:

"Studies On Gas Sensing Properties Of Chemically Deposited Nanocrystalline Copper Sulphide and Zinc Sulphide Thin Films."

Research experience: 10 Years.

Recognized as Ph.D and M.Phil. Supervisor (Guide) and P.G. Recognized Teacher by S. P. P. U, Pune(Maharashtra),India.

Administrative Experience:

1) **Head,** Department of Physics, M.J.M. Arts, Commerce and Science College Karanjali (Peth) Nashik-422 208.
2) **Academic Research Coordinator(ARC),** M.J.M. ASC College Karanjali (Peth) Nashik.
3) **Coordinator, Internal Quality assurance cell (IQAC) and NAAC -** M.J.M. ASC College Karanjali (Peth) Nashik.

Publications and Conference:

1. "Structural, Optical and Electrical properties of Nanocrystalline ZnS thin films Deposited by Novel Chemical Route"
Scholars Research Library, Archives of Applied Science Research (**ISSN: 0975-508X**) 3 (2) (2011) 311-317.
M. S. Shinde, P. B. Ahirrao and R. S. Patil*

2. "Studies on Nanocrystalline ZnS thin films Prepared By Modified Chemical Bath Deposition Method (M-CBD)"
NISCAIR's, *Indian Journal of Pure & Applied Physics,* (**ISSN: 0019-5596**) (Vol.49) November (2011) 765-768.
M. S. Shinde, P. B. Ahirrao, I. J. Patil and R. S. Patil*

3. "Studies on Structural, Optical and Electrical Properties of Nanocrystalline Cu_2S thin Films Deposited by Novel"

"International Sciences Press", International Journal of Material Science and Electronics Research (IJMSER), (**ISSN: 0976-6111**) Vol.2 No.1-2 Jan.-Dec.2011, 17-24.

M. S. Shinde and R. S. Patil*

4. "Thickness Dependant Electrical and Optical Properties of Nanocrystalline Copper sulphide (Cu_2S) thin films Grown by Simple Chemical Route"
NISCAIR's , *Indian Journal of Pure & Applied Physics*,(**ISSN: 0019-5596**) (Vol. 50) September (2012) 657-660.
M. S. Shinde, P. B. Ahirrao, I. J. Patil and R. S. Patil*

5. "Studies on Physical properties of Nanocrystalline Cu_2S thin films Prepared by Modified Chemical Bath Deposition Method (M-CBD)"
International Journal of Nanoelectronics and Materials (**ISSN: 2232-1535**) Vol.5 Jan. 2013.
M. S. Shinde, P.B. Ahirrao, I. J. Patil, S. K. Disawal and R. S. Patil*

6. "Studies on Ammonia (NH_3) gas sensing property of nanocrystalline Cu_2S thin films Deposited by Novel Chemical Route"
NISCAIR's , *Indian Journal of Pure & Applied Physics* (**ISSN: 0019-5596**)
M. S. Shinde, D.R. Patil and R. S. Patil*

7. "Photoluminescence properties of modified chemical bath deposited Copper Oxide thin film"
Scholars Research Library, Archives of Applied Science Research, (**ISSN:0975-508X**) 3 (2) (2011) 288-291.
P. B. Ahirrao, S. R. Gosavi, D. R. Patil, **M. S. Shinde** and R. S. Patil*

8. "Structural, Optical and Electrical Properties of Nanocrystalline Cuprous Oxide Thin Film Deposited By Chemical Method"
Journal of Scientific Review, (**ISSN: 0975-0754**) 2 (2) (2010) 86-90.
P. B. Ahirrao, D. R. Patil, Sanjay S. Sonawane, **M. S. Shinde** and R. S. Patil*

9. "Structural, Optical and Electrical Properties Of Nanocrystalline Cadmium Sulphide (CdS) Thin Films Deposited By Novel Chemical Route"
NISCAIR's , Indian Journal of Pure & Applied Physics (**ISSN: 0019-5596**)*(Vol. 52) January (2014) 39-43.IF0.521, 2013-14*
U. M. Jadhav, **M. S. Shinde,** S. N. Patel and R.S. Patil*

10. "Gas Sensitivity of Cu_2S Thin Films by CBD Route"

International Journal of Chemical and Physical Sciences (IJCPS) Vol. 3 Special Issue – NCETNN Dec-2014, 34 -43. **(ISSN:2319-6602) IF-1.815, 2014-15**

M. S. Shinde and R. S. Patil

11. "Studies of Fabrication Techniques of Hetero-junction 'CdS-CdTe'Thin Film Solar Cell

Journal of Shivaji University (Science & Technology)"(*ISSN-Science-0250-5347)* Volume No. 41 (2), 2014-2015

M. S. Sonawane , **M. S. Shinde**, A. N. Kulkarni and R. S. Patil*

12. " Thermal Decomposition of Ferroelectric Glycine Patassium Sulphate Crystal"

Chem Sci Rev Lett. ***(*****ISSN 2278-6783)**, 4(13) (2015) 349-353. 2014-2015 IF-4.856

I.J.Patil, **M.S.Shinde**, P.P.Jagtap, P.B.Ahirrao and R.S.Patil .

13. "Gas Sensing Properties of Nanostructured ZnS Thin Films"

J*. Nano. Adv. Mat.* 3, No. 1 (2015) 83-97. **ISSN 2090-9594 (Print),** ISSN 2090-9608 (Online) 2014-2015, IF-0.381

M. S. Shinde , Smt. Swapna Samanta, M. S. Sonawane, P.B.Ahirrao and R. S. Patil,

14. "Photoelectrochemical (PEC) Studies on Chemically Deposited CuSCN Thin Film by Simple Chemical Route" *Chem Sci Rev Lett*, 4(13) (2015) 285-291. (ISSN 2278-6783) 2014-2015, IF-4.856

P B Ahirrao, **M S Shinde**, I. J. Patil and R S Patil.

15. "Studies on Characterization of Cadmium Sulphide Thin Films Deposited by Chemical Bath Deposition (CBD) and Successive Ionic Layer Adsorption and Reaction (SILAR) Method"

Int. J. Thin. Fil. Sci. Tec. 4, No. 2 (2015) 97-101. **ISSN 2090-9519 (Print), ISSN 2090-9527 (Online)** 2014-2015

Smt. Swapna Samanta , **M. S. Shinde** and R. S. Patil.

16. Characterization Of Nickel Sulphide Thin Films Prepared By Modified Chemical Method.

NISCAIR's , *Indian Journal of Pure & Applied Physics* (**ISSN: 0019-5596**) (Vol.49) October (2015) 765-768. 2015-2016, 0.521

M. S. Sonawane, **M. S. Shinde** and R. S. Patil*

17. Synthesis and Characterization of Cadmium Selenide Nanocrystalline Thin Films Prepared Using Novel Chemical Approach.

J. Nano. Adv. Mat. ***4****, No. 2, 53-57 (2016) 53 , 1 Jul. 2016.* **ISSN 2090-9594 (Print), ISSN 2090-9608 (Online) 2016-17 IF-0.381**

Smt. Swapna Samanta, **M. S. Shinde** and R. S. Patil*

18. Gas Selectivity in sensing by Modified Chemically Bath Deposited ZnS thin films.

International Journal of Chemical and Physical Sciences **(ISSN:2319-6602)** Vol. 7, Special Issue ICAFM (Part-II) - March 2018 pages 654-658. 2017-2018.

M. S. Shinde and R. S. Patil*

19. "Comparative Study of Gas Sensing Properties of Nanostructured Cu2S Thin Films Deposited by CBD and MCBD Route"

J. Biol. Chem. Chron. 2019*, 5(3),* 140-142. **(ISSN (Print): 2454 – 7468 ISSN (Online): 2454 – 7476)**

M. S. Shinde* and T. C. Gaikwad

20. "Synthesis & Characterization Of Cadmium Selenide Nanocrystalline Thin"

International Journal of Advance and Innovative Research Volume 6, Issue 1 (XIX) : January – March 2019 : Part – 2, Page No's. 118 – 122 (UGC Enlisted :63571) **(e-ISSN:2394-7780)**

Swapna Samanta, **Mahendra S. Shinde** and R. S. Patil

21. "Characterization of Nanocrystalline CdS thin films deposited on ITO by chemical bath deposition for photo sensor applications".

Journal of Emerging Technologies and Innovative Research (JETIR) **(ISSN-2349-5162)**
May 2019, Volume 6, Issue 5, Page no. 2630-2637. (UGC Enlisted :23495162).

N.T. Shimpi , **M. S. Shinde,** P.B. Ahirrao*

22. Effect of Substrate on Structural, Optical and Electrical Properties of Zinc Oxide Thin Films Grown By Chemical Bath Deposition Technique.

498-508, pages 498-508. 2019.

N.T. Shimpi , **M. S. Shinde,** P.B. Ahirrao*

23. **Study Of Synthesis And Applications Of Zinc Sulphide (Zns) Thin Films: Review**

    Journal of the Maharaja Sayajirao University of Baroda (ISSN: 0025-0422)Volume-55, No.2 2021, pages- 252-256 (UGC Care Group-I).

    M. S. Shinde*

24. **Simple Chemical Route Synthesized Tio2/Ag2s Heterostructure Towards Efficient Semiconductor Sensitized Solar Cells**

    RA Wagh, AN Kulkarni, SP Roy, DB Salunkhe, VS Baviskar, **MS Shinde**, SR Navale, PK Baviskar, RS Patil
    Optical Materials Issue:125,(2022-23) Pages: 112073

25. **Sol-gel and hydrothermal synthesis of CeO2 NPs: Their physiochemical properties and applications for gas sensor with photocatalytic activities**

    LD Sonawane, AS Mandawade, HI Ahemad, YB Aher, AB Gite, LK Nikam, ...

    Inorganic Chemistry Communications, 112313 (2024)

26. **Investigation of Structural, Magnetic and Optical Properties for Dysprosium Doped Zinc Nanoferrites by Sol-Gel Autocombution Techniques**

    SV Chavan, VR Jadhav, SH Pisal, RB Bhise, MS Shinde, VH Goswami, ...

    East European Journal of Physics, 315-320 (2024)

27. **Gas sensing and photocatalytic activity of synthesized hierarchical Bi2O3 nanoflakes by sol–gel and nanosheets by hydrothermal method**

    AS Mandawade, LD Sonawane, HI Ahemad, YB Aher, AB Gite, LK Nikam, ...

    Journal of Materials Science: Materials in Electronics 35 (14), 989 (2024)

28. **Effect of Annealing on the Physical Properties of Chemically Synthesized Nanocrystalline SnO2 Thin Films**

    SS Tayade, LN Bhoye, KR Sali, GE Patil, MS Shinde, SR Gosavi

    J. Nano- Electron. Phys. Sumy State University (2024)

29. **"STUDIES ON GAS SENSITIVITY OF CADMIUM SULPHIDE (CdS) THIN FILMS".**

    RBBMSS U. M. Jadhav, S. B. Bansode

    JETIR 10 (5), 542-550 (2023)

30. **Comparative studies on synthesis and characterization of Nano crystalline Ag2s thin films by CBD and M-CBD method**

    UM Jadhav, MS Shinde

    Journal of Research in Chemistry 2023; 4(1): 69-73

BOOKS :

1. "Chemical deposition route, gas sensors & thin film characterizations" (ISBN: 978-3-659-63290-7) 2014/11/7, LAP LAMBERT Academic Publications.
2. "Synthesis, characterization of chemically deposited Cu_2O thin films" (ISBN: 978-3-659-83550-6) 2016/03/10, LAP LAMBERT Academic Publications.
3. "Chemically deposited CuI thin films and Its Properties." Dec. 2020, Scholars Press, Academic Publications (ISBN: 978-6-138-95247-3).

❖ **Paper Presentation in International/National Conferences/ Workshops**

1. "Study on Growth and Characterizations of Nanocrystalline Copper Iodide Thin Film Deposited by Modified Chemical Method"

International Conference on Nanomaterials and Application held at Shivaji University, Kolhapur, India (December-2008)

P. B. Ahirrao **, M. S. Shinde**, R. S. Patil, B. R. Sankapal and C. D. Lokhande

2. "Studies on Characterizations of Nanocrystalline Cuprous Oxide Thin Films Deposited by Chemically Arrested Route"

International Conference on Nanoscience and Nanotechnology, held at Swami Ramanand Teerth Marathwada University, Nanded, (M. S.), India. (Jan. 2011).

M. S. Shinde, J. S. Suryavanshi, P. B. Ahirrao and R. S. Patil

3. "Studies on Ammonia gas sensing property of nanocystalline Cu_2S thin films Deposited by Novel Chemical Route"

International Conference On Physics Of Materials And Materials Based Device Fabrication (ICPM-MDF-2012) organized by Shivaji University, Kolhapur (Jan 2012).

M. S. Shinde, P. B. Ahirrao and R. S. Patil

4. "Chemical Bath Deposition of Nanocrystalline CuS Thin Films"

   National seminar on Nanotechnology revolution in the field of controlled and targeted drug delivery system, held at Shahada, M.S., India (December 2009)

   M. S. Shinde, P. B. Ahirrao and R. S. Patil

5. "Studies On Nanocrystalline ZnS Thin Films Prepared By Chemical Bath Method (CBD)"

   21stAGM-MRSI Theme Symposium Advanced Ceramic Materials– Monoliths To Composites held at Sardar Patel University (Feb 2010).

   M. S. Shinde, P. B. Ahirrao, I. J. Patil and R. S. Patil

6. "Studies On Nanocrystalline CuS Thin Films Prepared By Chemical Bath Method (CBD)"

   National Seminar on Nanomaterials for Devices: Characterization and Applications held at University of Pune, (June 2010).

   M. S. Shinde, P. B. Ahirrao and R. S. Patil

7. "Thickness Dependant Electrical and Optical Properties of Nanocrystalline Copper sulphide thin films Grown by Simple Chemical Route"

   National Conference on Recent Advances In Material Synthesis & Characterization held at Bhusawal, (Jan 2011).

   M. S. Shinde, J. S. Suryavanshi, P. B. Ahirrao and R. S. Patil

8. "Studies on Nanocrystalline ZnS films prepared by modified chemical bath deposition method (M-CBD) "

   National Conference on Nanostructures & Nanomaterials held at North Maharashtra University Jalgaon, M.S. India (March 2011).

   M. S. Shinde, J. S. Suryavanshi, P. B. Ahirrao**,** I. J. Patil and R. S. Patil

9. "Gas Sensing Properties of Nanocrystalline Cu_2S thin films Deposited by Novel Chemical Route"

   National Conference on Lasers and Advanced Materials (NCLAM 2012). Organized by Sant Gadge Baba Amravati University. Amravati-444602 Maharashtra, India (May 2012)

M. S. Shinde, P. B. Ahirrao, I. J. Patil , D.R. Patil and R. S. Patil*

10. "Hydrogen Gas Sensing Performance of ZnS nanocrystals grown by Novel Chemical Route"

National Conference on Indian development in recent and ideal semiconductors or novel applications (NC IDRIS 2012)

M. S. Shinde, P. B. Ahirrao, I. J. Patil , D.R. Patil and R. S. Patil*

11. "Thickness Dependent Electric Properties ZnS Thin Films"

State level seminar on advances in science and technology of Nanomaterials (AISATON-2010) Sakri, M.S., India (February-2010)

M. S. Shinde, P. B. Ahirrao and R. S. Patil

12. "Studies on Nanocrystalline ZnS thin films Prepared By simple chemical novel route"

University Level Research Festival,Avishkar-2009, held at North Maharashtra University Jalgaon, M.S. India (December 2009).

M. S. Shinde, P. B. Ahirrao, I. J. Patil and R. S. Patil

"Studies on Chlorine (Cl_2) gas sensing properties of nanocrystalline ZnS thin films Deposited by Chemical Route"

13. **2nd International** Conference on "Physics of materials and material based device fabrication (ICPM-MDF-2014)" Jan 13-15,2014(2013-2014)

M. S. Shinde [1] R. S. Patil [2], I. J. Patil [2] and D.R. Patil [3]

14. "Role Of Sophisticated Technology In Effective Communication"

State level seminar on advances in science and technology of Nanomaterials (AISATON-2010) Satana, M.S., India (December -2013) (2013-2014)

Mahendra S. Shinde * and Rohit M. Nikam

15. "Studies on physical properties of nanocrystalline CuS thin films prepared by chemical bath deposition" A Two day state level conference on "thin and thick films (Deposition ,characterization and applications) (2013-2014)

A two day **state** level conference at 21-22 March 2014 Organised by Arts ,Commerce and Science college, Ozar (MIG) Tal.Niphad Dist. Nashik.

M.S.Shinde

16. LPG gas sensing properties of nanocrystalline ZnS thin films deposited by novel chemical route.

National conference on "material advances for better future" Organized By Jijamata College of Science and Arts Dnyaneshwarnagr Bhende bk. Tal-Newasa Dist-Ahmednagar 16-17 January 2015.

M.S.shinde and R.S.Patil

17. "Synthesis and Characterizations of Nanocrystalline ZnSe Thin Films grown by Chemical Route."

Mahendra S. Shinde * and Rohit M. Nikam

State level conference on "New Research Trends In Chemistry And Its Applications In Environmental Science". K.K.H.A. arts,SMGL commerce and SPHJscience college, Neminagar,Chandwad,Dist. Nashik 423101 , 26th and 27th February 2016.

18. "Gas sensing of nanocrystalline TiO_2 Thin films."

Mahendra S. Shinde * and R. Y. Borse

National Conference On Nanomaterial Imeretives In The New Millennium (NINM-2016) 16th -17th October 2016. K.K.H.A. Arts,SMGL Commerce and SPHJ Science college, Neminagar,Chandwad,Dist. Nashik 423101.

19. "Studies on Physical Properties of Nanocrystalline Copper Oxide thin films Grown by Simple Chemical Route"
R.S.Gunjal, M. S. Shinde, and U.P.Shinde

State Level Conference On "Advanced Materials And Innovative Processing Ideas (AMIPI - 2017)" during 27th and 28th January 2017 at M. J. M. Arts Commerce And Science College,Karanjali, Tal-Peth, Dist-Nashik, Maharashtra, 422 208.

20. Gas Selectivity in sensing by Modified Chemically Bath Deposited ZnS thin films.

M. S. Shinde and R. S. Patil*

International Conference On Advances In Functional Materials – 2018 on 12-13, January 2018 Organized By Department of Physics, Electronic Science and Chemistry M.V.P. Samaj's K.R.T. Arts, B.H. Commerce and A.M. Science College. (K.T.H.M. COLLEGE)
Gangapur Road, Nashik – 422002, Maharashtra (India)

21. "Studies On Thickness Dependent Structural And Optical Characteristics Of Nano Fibrous Cd-Zns thin films Prepared By Novel Chemical Route"

M.S.Shinde and T.C.Gaikwad

Participated and presenting a paper at **National** Conference on Synthesis ,Characterization Of Promising Nanomaterials For Energy &

Environmental Application organized by Dept. of Physics Kr.V. N. Naik Shikshan Santha's ACS College Nashik. On 14th -15th Feb. 2020.

22. Study Of Synthesis And Applications Of Zinc Sulphide (Zns) Thin Films: Review

Participated and presenting a paper at **National** Conference on " advanced materials ,technology, applications& education organized by Dept. of Physics Dnyaneshwar gramonnmati shikhan mandals Hon. BJ ACS College Ale tal. Junnar Dist. Pune-412411. On 16th Oct.2021.

Refresher/ Orientation/Workshop courses Attended:	1. **Orientation Courses:** 1) 155th Orientation Programme Organized By Academic Staff College, Pune (03/12/ 2014 To 30/12/ 2014) 2. **Refresher courses :** 1) Refresher Course in Experimental Physics, Department of Physics, Kurukshetra University, Kurukshetra- 136119 (13/09/2015 to 28/09/2015) 3. **Workshop:** Two week ISTE STTP on **Engineering Physics** under the national mission on education through ICT (MHRD, Govn. Of India) 8th-18th December,2015 conducted by IIT Bombay. 4. **Refresher courses :** 1) Refresher Course in Experimental Physics, Department of Physics, Sant Gadge Baba Amaravati University, Amaravati – 444602 (10/07/2017 to 29/07/2017) 5. **Online FDP** on Effective Ways to Develop E-Content for Teaching Learning

	of Ten Days(from 21/05/2020 to 30/05/2020) conducted by M.V.P.S. K.R.Arts,B.K. Commerce and A.M.Science College Nashik with Sponsored by UGC HRDC ASC SPPU,Pune. 6. **Online STC** on Research Methodology In Basic Science Organized By UGC-HRDC Mumbai university during 21/09/2020 to 26/09/2020. 7. **Refresher courses :** online Two week interdisciplinary Refresher Course on " Materials Physics and Material science held from 07/12/2020 to 21/12/2020, UGC-HRDC JNTUH Hyderabad, Telangana State ,During 07/12/2020 to 20/12/2020. 8. **FDP:** Online Seven Days FDP On Quality Assessment & Enhancement In Higher Education In The Light Of New Framework Of NAAC 22/06/2021 to 29/06/2021,under Paramarsha Scheme of UGC organized by GHGK college of Education Gurusar Sadhar, Ludhiana. 9. **Refresher Course** online Two week Refresher Course on Physics (SRC) held from 4th October 2021 - 18th October 2021 CPDHE, UGC-HRDC,University of Delhi

❖ **<u>Participated in Workshops</u>**

1. **1st National teachars' congress** MIT campus Pune,India 23rd – 25th September 2016.
2. One day workshop on **"Importance Of National Assessment And & Accreditation**"

   30th November 2016 at Savitribai Phule Pune University,Pune 411007.

❖ **Awards / Honors and membership**

1. Editorial board member for journal **"American Journal of Nano Research and Applications(NANO)"** From 3rd December 2014.
2. Editorial board member for journal **"International Journal of Materials Science and Applications (IJMSA)" ISSN: 2327-2635(Print), ISSN: 2327-2643(online)**From 3rd December 2014.

Reviewer for following journals

1. Materials Research Express (IMPACT FACTOR: 0.968) Institute of Physics (IOP), publications
2. THIN SOLID FILMS (ISSN: 0040-6090 and Impact Factor : 1.761), Elsevier
3. Results in Physics (ISSN: 2211-3797 and Impact Factor : 1.337), Elsevier
4. Journal of Petroleum and Gas Exploration Research (JPGER) (ISSN:2276-6510) International Research Journals

Ph,D. Reviewer :

Thesis of **Mrs. A. Angelin Prema** entitled "Deposition & Characterization of metel (Pb/Sn) Doped Cds Thin Films Through Chemical Bath Method". **Dated 29/08/2017** From BHARTISADAN UNIVERSITY PALKALAIPEPUR, Tiruchirapalli-620024, Tamilnadu, India.

Personal Details:

Permanent & Correspondence Address	Mr. Shantaram A. Shinde, Aai Niwas, Swami Samartha Nagar, Kalwan Road. At Post & Tal. Deola Dist.Nashik. Pin Code:-423102
Contact no.	+91-9423550299/+91-94229913364 (Mobile)
E-mail	mahen3569@rediffmail.com msshinde123321@gmail.com

I hereby declare that all the above information furnished in my curriculum vitae is true to the best of my belief.

(**MAHENDRA S. SHINDE)**