● Curriculum Vitae (CV) ●

Dr. Mahesh Mahadev Kamble

Address: Flat no. 201, S R Swasthi, Yashodha Chouk, Balewadi, Pune 411045. Maharashtra
Email: mmkamble14@gmail.com, **mobile:** +91 (0) 9595661945

EDUCATIONAL QUALIFICATION:

NET/ SET:	Qualified SET examination (November 2011) conducted by U.G.C. and University of Pune for lectureship in Maharashtra and Goa.
Doctor of Philosophy (Ph. D.) in Physics (2016):	At Department of Physics, Savitribai Phule, Pune University, Pune
Title of Thesis:	Synthesis and study of hydrogenated nanocrystalline silicon and its alloy by hot wire chemical vapor deposition for solar cell applications.
Master of Philosophy (M.Phil.) in Physics (2011):	At Department of Physics, Savitribai Phule Pune University, Pune **Grade obtained "O"**
Title of Thesis:	Synthesis and study of nano-crystallites embedded amorphous silicon thin films prepared by hot wire chemical vapor deposition method.
Master of Science (Physics) (2009):	At Department of Physics, Savitribai Phule Pune University, Pune, India **Class Obtained: First Class (4.0 G.P.A Out of 6.0)**
Bachelor of Science (Physics) (2007)	Punyashlok Ahilyadevi Holkar University, Solapur **Class Obtained: First Class with distinction**

TEACHING EXPERENCE:

- M.Sc. electronics at Department of Electronic Science, University of Pune, Pune during the first semester of M.Sc.during 2011-12.
- At Anantrao Pawar College Pirangut, Tal.-Mulshi, Dist.-Pune. from 25th September 2012 to 24th June 2025.
- At Prof. Ramkrishna More, Art's, Commerce and science College (Autonomous), Akurdi, Pune from 25th June 2025 to till date.

AWARDS/FELLOWSHIPS:

- Junior Research Fellow of University Grant commission sponsored project at Department of Physics, University of Pune (1st June 2012 –24 September 2012)

- Project Assistant Fellowship of Department of Science and Technology sponsored project at Department of Physics, University of Pune (1st April 2010 -31thMay2012)

- Project Assistant Fellowship of centre for nanomaterials and quantum system sponsored project at Department of Physics, University of Pune (august 2009-march 2010).

Extra Curricular Activities:

- Worked as N.S.S. programme officer during the academic year 2017-18 and 2019-20 at Anantrao Pawar College, Pirangut, Tal.-Mulshi, Dist.-Pune.

Curricular Activities:

- Worked as College Examination Officer (C.E.O.) at Anantrao Pawar College Pirangut from 18/05/2021 To 31/07/2024.

Book Chapter Published: Applications of Nanomaterials for Energy Storage Devices
Chapter Name: Physical Methods for Synthesis and Thin-Film Deposition
Publisher: CRC Press

LIST PUBLICATIONS:

A. Peer Reviewed International Journals:

1) Gas-sensing and supercapacitor performance of nanocrystalline spinel-structured CuAl2O4 synthesized by solution combustion method
   P.D. Prakshale, S. V. Bangale, M. M. Kamble, S. B. Sonawale: J Mater Sci: Mater Electron (2026) 37:168 (2026) https://doi.org/10.1007/s10854-026-16568-7
2) Room-Temperature Synthesis and Photodetector Performance of All-Inorganic Lead-Free $Cs_3Bi_2X_9$ (X=Cl,Br, I) Perovskite Nanocrystals
   Minal Chopade, ,Mahesh Kamble, Komal Gadekar, Shruti Shah, Abhijit Landge, Minal Kurane, Priti Vairale, Shashikant P.Patole,and Sandesh Jadkar: ACS Applied material and Interface: **2025** *17* (44), 60733-60745 https://doi.org/10.1021/acsami.5c11230
3) Synthesis and study of nickel sulfide nanoparticles and nanostructures for energy storage device applications
   Mahesh Kamble, Bharat Bade, Avinash rokade, Vaishali Waman, Sachin Bangale, Sandesh Jadkar: Nanosystems:Physics, Chemistry, Mathematics 15(3) (2024) 398-409
   https://nanojournal.ifmo.ru/en/articles-2/volume15/15-3/chemistry/paper11/
4) Combustion synthesis of spinel structured NiCo2O4 nanostructures: An efficient material for gas sensing and supercapacitor electrode applications
   P.D. Prakshale, S. V. Bangale, M. M. Kamble, S. B. Sonawale
   Micro and Nanostructures 189 (2024) 207820
   https://www.sciencedirect.com/science/article/abs/pii/S2773012324000694
5) Synthesis and Characterization of Zn0.5Co0.5Fe2O4 Nanoparticles for Gas Sensing Applications
   P.D. Prakshale, S. V. Bangale, M. M. Kamble, S. B. Sonawale
   ECS Journal of Solid State Science and Technology, (2023) Volume 12 087003
   https://iopscience.iop.org/article/10.1149/2162-8777/aced6b/meta
6) Synthesis, study and characterization of spinel CoFe2O4 for the ethanol gas-sensing applications
   P.D. Prakshale, S. V. Bangale, M. M. Kamble, S. B. Sonawale
   J Mater Sci: Mater Electron (2023) 34:1852
   https://link.springer.com/article/10.1007/s10854-023-11253-5
7) $Zn_{1-x}Co_xMn_{1-x}Fe_xCrO_4$ ferrichromate: an efficient material for high performance supercapacitor applications
   Vaibhav Salve, Pramod Agale, Avinash Rokade, Mahesh Kamble, Sunil Patanged and Paresh More ***New J. Chem.***, 2023,**47**, 20653-20667
   https://pubs.rsc.org/en/content/articlelanding/2023/NJ/D3NJ03295G

8) Synthesis and study of $CsPbBr_3$ by using antisolvent recrystallization method for solar cell applications

Chopade M. K., Gadekar K. B., Rahane S. N., Bade B. R., Waman V. S., Jadkar S. R., Kamble M. M.

Int. Res. J. of Science & Engineering, Special Issue A12, February, 2023 ISSN: 2322-0015 https://doi.org/10.5281/zenodo.7839072

9) Optical, Structural and Morphological Study of CdS Nanoparticles: Role of Sulphur Source

Mahesh M. Kamble, Sachin R. Rondhiya, Bharat R. Bade, Kiran B. Kore, Mamta P. Nasane, Nelson Y. Dzade, Adinath M. Funde, Sandesh R. Jadkar.

Nanomaterials and Energy (2020) Volume9, Issue 1, PP 1-10

https://www.icevirtuallibrary.com/doi/abs/10.1680/jnaen.19.00041

10) Synthesis, characterization and study of cadmium sulphide (cds) films fabricated using chemical bath deposition method.

Mahesh Kamble, Bharat Bade, Sachin Rondiya, Subhash Pandharkar, Adinath Funde, Sandesh Jadkar

Journal of Emerging Technologies and Innovative Research (JETIR) May 2019, Volume 6, Issue 5, 74-78 http://www.jetir.org/papers/JETIRCM06020.pdf

11) Synthesis of cubic nanocrystalline silicon carbide (3C-SiC) films by HW-CVD method

Mahesh Kamble, Vaishali Waman, Azam Mayabadi, Adinath Funde, Vasant Sathe, T. Shripathi, Habib Pathan, Sandesh Jadkar

Silicon 9 (03) 421-429 (2017)https://link.springer.com/article/10.1007/s12633-015-9358-8

12) Hydrogenated silicon-carbide (SiC:H) thin films prepared with high deposition rate by hot wire chemical vapor deposition (HW-CVD) method

M. M. Kamble, V. S. Waman, A. H. Mayabadi, S. S. Ghosh, B. B. Gabhale, S. R. Rondiya, A. V. Rokade, S. S. Khadtare, V. G. Sathe, T. Shripathi, H. M. Pathan, S. W. Gosavi, S. R. Jadkar

Journal of Coatings Volume 2014, Article ID 905903 1-11 **(2014)** https://www.hindawi.com/journals/jcoat/2014/905903/

13) High growth rate a-SiC:H films using ethane carbon source by HW-CVD method

Mahesh M. Kamble, Vaishali S. Waman, Sanjay S. Ghosh, Azam Mayabadi, Vasant G. Sathe, T. Shripathi, and Sandesh R. Jadkar

Bull. Mater. Sci., Vol. 36, No. 7 1177–1185 **(2013)**

https://www.ias.ac.in/describe/article/boms/036/07/1177-1185

14) Synthesis of Hydrogenated Nanocrystalline Silicon Films by HW-CVD without Hydrogen Dilution of Silane

M. M. Kamble, Pramod M. R., V. S. Waman, A. M. Funde, V. G. Sathe, S. W. Gosavi, S.R. Jadkar

AIP Conf. Proc 1391 746-748 **(2011)** https://aip.scitation.org/doi/10.1063/1.3643667

15) Investigation of growth mechanism for highly oriented TiO2 nanorods: the role of reaction time and annealing temperature

Bharat R. Bade, Sachin Rondiya, Somnath R. Bhopale, Nelson Y. Dzade, **Mahesh M. Kamble,** Avinash Rokade, Mamta P. Nasane, Mahendra A. More, Sandesh R. Jadkar, Adinath M. Funde

Springer Nature (SN) Applied Sciences (2019) 1:1073

https://link.springer.com/article/10.1007%2Fs42452-019-0978-2

16) Investigations of the structural, optoelectronic and band alignment properties of Cu2ZnSnS4 prepared by hot-injection method towards low-cost photovoltaic applications

Bharat R. Bade, Sachin Rondiya, Yogesh A. Jadhav, Mahesh M. Kamble,, Sunil V. Barma, Sagar B. Jathar, Mamta P. Nasane, Sandesh R. Jadkar, Adinath M. Funde, Nelson Y. Dzade

Journal of Alloys and Compounds (2021) 854: 157093

https://www.sciencedirect.com/science/article/pii/S0925838820334575

17) Evolution of microstructural properties of hydrogenated protocrystalline silicon (PC-SI:H) thin films deposited by hw-cvd

V. S. Waman, **M. M. Kamble**, S. W. Gosavi, S. R. Jadkar **Journal of Emerging Technologies and Innovative Research (JETIR)** May 2019, Volume 6, Issue 5 65-69

http://www.jetir.org/papers/JETIRCM06018.pdf

18) The effect of thiourea quantity variation on structural and optical properties of cds films deposited using cbd technique

Bharat Bade, **Mahesh Kamble**, Sachin Rondiya, Subhash Pandharkar, Kiran Kore, Haribhau Borate, Sandesh Jadkar, Adinath Funde JETIR May 2019, Volume 6, Issue 5 79-83 **Journal of Emerging Technologies and Innovative Research (JETIR)**

http://www.jetir.org/papers/JETIRCM06020.pdf

19) Effect of calcination on structural, morphological and photoelectrochemical performance of SnO_2/TiO_2 nanocomposite films for solar cells

Azam Mayabadi, Amit Pawbake, Sachin Rondiya, Avinash Rokade, Ravindra Waykar, Rupali Kulkarni, Ashok Jadhavar, **Mahesh Kamble**, Bharat Gabhale, Vaishali Waman, Vasant Sathe, Habib Pathan, Sandesh Jadkar

Thin Solid Films 589 493–502 **(2015)**

https://www.sciencedirect.com/science/article/pii/S0040609015006276

20) Effect of Xe dilution on structural, electrical and optical properties of nanocrystalline Si films deposited by HW-CVD method

Vaishali S. Waman, Azam H. Mayabadi, **Mahesh M. Kamble**, Bharat B. Gabhale, Adinath M. Funde, Vasant G. Sathe, Habib M. Pathan, Sandesh R. Jadkar

Adv. Mater. Lett. 6(9) 95-802 (**2015**) https://aml.iaamonline.org/article_14731.html

21) Evolution of microstructure and opto-electrical properties in boron doped nc-Si:H films deposited by HW- CVD method

V.S. Waman, **M.M. Kamble**, S.S. Ghosh, A.H. Mayabadi, B.B. Gabhale, S.R. Rondiya, A.V. Rokade, S.S. Khadtare, V.G. Sathe, H.M. Pathan, S.W. Gosavi, S.R. Jadkar

Journal of Alloys and Compounds 585 523-528 **(2014)**

https://www.sciencedirect.com/science/article/abs/pii/S0925838813023463

22) Evolution of structural and optical properties of routile Tio2 thin films synthesized at room temperature by chemical bath deposition method.

A. H. Mayabadi, V. S. Waman, **M. M. Kamble**, S. S. Ghosh, B. B. Gabhale, S. R. Rondiya, A. V. Rokade, S. S. Khadtare, V. G. Sathe, H. M. Pathan, S. W. Gosavi, S. R. Jadkar

Journal of Physics and Chemistry of Solids 75(2) 182-187 **(2014)**

https://www.sciencedirect.com/science/article/abs/pii/S0022369713003181

23) Influence of helium dilution of silane on microstructure and opto-electronic properties of hydrogenated nanocrystalline silicon (nc-Si:H) thin films deposited by HW-CVD

V. S. Waman, **M. M. Kamble**, S. S. Ghosh, R. R. Hawaldar, D. P. Amalnerkar, V. G. Sathe, S. W. Gosavi, S. R. Jadkar

Materials Research Bulletin Volume 47, Issue 11 3445–3451 **(2012)**

https://www.sciencedirect.com/science/article/pii/S0025540812005399

24) Highly conducting phosphorous doped n-type nc-Si:H films by HW-CVD for c-Si heterojunction solar cell

Vaishali S. Waman, **Mahesh M. Kamble**, Sanjay S. Ghosh, Azam Mayabadi, Vasant. G. Sathe, Habib M. Pathan, Shashikant D. Shinde, Kiran P. Adhi and Sandesh R. Jadkar

RSC Advance 2 9873–9880 **(2012)**

https://pubs.rsc.org/en/content/articlelanding/2012/ra/c2ra21618c#!divAbstract

25) Highly Conducting Phosphorous Doped nc-Si:H Thin Films Deposited at High Deposition Rate by Hot-Wire Chemical Vapor Deposition Method

V. S. Waman, **M. M. Kamble**, S. S. Ghosh, Azam Mayabadi, V. G. Sathe, D. P. Amalnekar, H. M. Pathan, and S. R. Jadkar

Journal of Nanoscience and Nanotechnology 12 8459-8466**, (2012)**

https://www.ingentaconnect.com/content/asp/jnn/2012/00000012/00000011/art00032%3bjsessionid=194u8dm6ot32b.x-ic-live-03

26) Boron doped nc-Si:H window layer prepared by HW-CVD for solar cell applications

Pramod M. R., **M. M. Kamble**, V. S. Waman, A. M. Funde, S. P. Gore, K. R. Patil, V. G. Sathe, S. W. Gosavi, S. R. Jadkar

International Journal of Modern Physics: Conference Series 6 521-526 **(2012)**

https://www.worldscientific.com/doi/pdfplus/10.1142/S2010194512003716

27) Fine-Tuning of relative fraction of amorphous and crystalline phases in Si:H prepared by PE- CVD method

A. M. Funde, V. S. Waman, **M. M. Kamble**, Pramod M. R., V. G. Sathe, S. W. Gosavi, S. R. Jadkar

Energy Procedia 15 229 – 239 **(2012)**

https://www.sciencedirect.com/science/article/pii/S1876610212003633

28) Bulk-heterojunction morphology control during spin coating: Modelling diffusion assisted phase separation

S. S. Ghosh, G. S. Lonkar, M. S. Mahajan, S. R. Jadkar, V. S. Waman. M. M. Kamble, V. Ganesan, and J. V. Sali

Applied Physics Letters 101 173305 **(2012)**

https://aip.scitation.org/doi/full/10.1063/1.4761931

29) Influence of deposition parameters on microstructure and opto-electrical properties of hydrogenated nanocrystalline silicon films by HW-CVD

V. S. Waman, **M. M. Kamble**, Pramod M. R., S. P. Gore, A. M. Funde, R. R.Hawaldar, D. P. Amalnerkar, V. G. Sathe, S. W. Gosavi, S. R. Jadkar

Journal of Non-crystalline Solids 357 (21) 3616-3622 **(2011)**

https://www.sciencedirect.com/science/article/pii/S0022309311004479

30) Hydrogenated nanocrystalline silicon thin films by hot wire chemical method with varied process pressure

V. S. Waman, **M. M. Kamble**, Pramod M. R., A. M. Funde, R. R.Hawaldar, D. P. Amalnerkar, V. G. Sathe, S. W. Gosavi, S. R. Jadkar

Journal of Nanotechnology 2011 1-10 doi:10.1155/2011/242398 **(2011)**

https://www.hindawi.com/journals/jnt/2011/242398/

31) Nanostructured hydrogenerated silicon films by hot wire chemical vapor deposition: The influence of substrte temperature on material properties

V. S. Waman, **M. M. Kamble**, Pramod M. R., A. M. Funde, V. G. Sathe, S. W. Gosavi, S. R. Jadkar.

Journal of Nano. Electron. Phys. 3/1 590-600 **(2011)**

https://jnep.sumdu.edu.ua/en/component/search/index.php?option=com_content&task=full_article&id=213

32) Structural and optical investigations of nc-Si:H thin films prepared by hot wire method

V. S. Waman, **M. M. Kamble**, Pramod M. R., A. M. Funde, V. G. Sathe, S. W. Gosavi, S. R. Jadkar

AIP Conf. Proc. 1391 155-157 **(2011)**

https://aip.scitation.org/doi/abs/10.1063/1.3646809

33) Boron doped p-type hydrogenated nanocrystalline silicon films by hot wire chemical vapor deposition

Pramod M. R., **M. M. Kamble**, V. S. Waman, S. P. Gore, G. R. Roze, A. M. Funde, V. G. Sathe, S. R. Jadkar

AIP Conf. Proc. 1391 517-519 **(2011)**

https://aip.scitation.org/doi/abs/10.1063/1.3643596

34) Inter-electrode separation induced amorphous-to-nanocrystalline transition of hydrogenated silicon prepared by capacitively coupled PE-CVD method.

A. M. Funde, V. S. Waman, **M. M. Kamble**, Pramod M. R., S. W. Gosavi and S. R. Jadkar,

J. Nano-Electron. Physics 3 651-661 **(2011)**

https://jnep.sumdu.edu.ua/en/component/search/index.php?option=com_content&task=full_article&id=219

35) Role of argon in hot wire chemical vapor deposition of hydrogenated nanocrystalline silicon thin films

N.A. Bakr, A.M. Funde, V.S. Waman, **M.M. Kamble**, R.R. Hawaldar, D.P. Amalnerkar, V.G. Sathe, S.W. Gosavi, S.R. Jadkar

Thin Solid Films 519 (11) 3501–3508 **(2011)**

https://www.sciencedirect.com/science/article/pii/S0040609011001489

36) Influence of deposition pressure on structural, optical and electrical properties of nc-Si:H films deposited by HW-CVD

N.A. Bakr, A.M. Funde, V.S. Waman, **M.M. Kamble**, R.R. Hawaldar, D.P. Amalnerkar, V.G. Sathe, S.W. Gosavi, S.R. Jadkar

J. Phys. Chem. Solids 72(6) 685–691 **(2011)**

https://www.sciencedirect.com/science/article/abs/pii/S0022369711000527

37) Determination of the optical parameters of a-Si:H thin films deposited by HW-CVD technique using transmission spectrum only

N.A. Bakr, A.M. Funde, V.S. Waman, **M.M. Kamble**, R.R. Hawaldar, D.P. Amalnerkar, V.G.Sathe, S.W. Gosavi, S.R. Jadkar,

PRAMANA-Journal of Physics, **76(3)** 1–13 **(2011)**

https://www.ias.ac.in/describe/article/pram/076/03/0519-0531

B. CONFERENCES/WORKSHOPS/SYMPOSIA:

1) International photovoltaic solar energy conference (IPSEC- 2015), Department of Physics, Savitribai Phule Pune University, Pune, India, 30 July-01 August **2015 (Poster Presentation)**
2) Emerging Trends in Physics (ETP-2015), Department of Physics, Anantrao Pawar Colege, Pirangut, Tal.-Mulshi, Dist. Pune. 6th -7th February **2015, (Participated)**
3) Radio Telescope and Its Applications at GMRT, Khodad village, Narayangaon organized by Department of Physics, Annasaheb Waghire College of Science, Arts and commerce, Otur, Tal-Junnar Dist. –Pune 2nd February **2013 (Participated)**
4) Raman Memorial Conference, Department of Physics, University of Pune, Pune, India, 22-23 February **2013, (Poster Presentation)**
5) Raman Memorial Conference, Department of Physics, University of Pune, Pune, India, 2-3 March **2012, (Poster Presentation)**
6) Raman Memorial Conference, Department of Physics, University of Pune, Pune, India, 26-28 February **2011, (Poster Presentation)**
7) National seminar on physics of material and Material based device fabrication, Department of Physics, Shivaji Uniersity Kolhapur, 17-18 February **2011 (Poster Presentation)**
8) international conference on light, Natational institute of Technology, kalicut, Kerala, India, 23-25 May **2011 (Oral presentation)**
9) Nanostructured Materials for Advanced Technology, Karmveer Bhauro Patil Mahavidyalaya, Pandharpur, Dist.- Solapur, Maharashtra, 3-4 October **2011 (Poster presentation)**
10) National Seminar on Nanomaterials for Devices: Characterization and Applications, Department of Physics, University of Pune and Department of Applied Physics DIAT Pune,24-26 June **2010 (Poster Presentation)**

TECHNICAL EXPERIENCE:

Hot Wire Chemical Vapor Deposition (HW-CVD), D.C.Sputtering unit, Vacuum techniques (UHV), Microtron, Hot injection Technique, Material characterization for Structural and Optoelectronic properties.
Programming Languages: C, FORTRAN

Personal Details:
Social Reservation: S.C.
Date of Birth: 02/06/1984

ACADEMIC PROJECTS:

"MeV energy electron irradiation induced diffusion of silver in borosilicate glass" at M. Sc. level

STRENGTHS:

Sincere, Hardworking, Leadership Qualities, Good communication skills

AREA OF INTEREST

Teaching – this is the field where skills to convey knowledge comes in picture and to deliver best knowledge one has to remain at the front end of it.

REFERENCES: Available on demand.

Place: Pune.
Date: