

CURRICULUM VITAE

1. PERSONAL PROFILE:

Name : Dr. Namdev Shankar Harale
Father Name : Mr. Shankar Dattu Harale
Gender : Male
Date of Birth : 26/12/1987
Marital Status : Married
Religion : Hindu
Category : Open (Maratha)
Conversant in : Marathi, Hindi, English
Address for Communication : Department of Physics, SGM College, Vidyanagar,
Karad-415124, Dist- Satara, Maharashtra, India
Mobile No. : 9763988097
E-mail ID : namdevharale@gmail.com
Employment Reg. No. : 06DHENSHM8701



2. EDUCATIONAL QUALIFICATION:

Degree	Name of Institute / College	University	Year of Passing	Marks (%)
B.Sc.	Shivraj College, Gadhinglaj	Shivaji University, Kolhapur	2008	68.6
M.Sc.	Shivaji University, Kolhapur	Shivaji University, Kolhapur	2010	69.78
Ph.D.	Shivaji University, Kolhapur	Shivaji University, Kolhapur	2016	-
Post Doc	CSIR-NCL Pune	-	2020	-

3. EXPERIENCE:

Designation	Name of Institution / Organization	Period of Service		Experience (Years & Months)
		From	To	
Teaching Assistant	Dept. of Physics Shivaji University, Kolhapur	21th Aug 2010	2 Nov 2011	1year & 3 Months

Junior Research Fellow	Dept. of Physics Shivaji University, Kolhapur	3 Nov 2011	23 Aug 2014	2year & 9 Months
Assistant Professor	School of Nanoscience and Biotechnology, Shivaji University, Kolhapur	1 July 2016	25 April 2019	2year & 9 Months
CSIR-Research Associate	CSIR-National Chemical Laboratory, Pune	26 April 2019	26 Feb 2020	10 Months
Assistant Professor	SGM College, Karad	27 Feb 2020	till date	working

Total Teaching Experience: **13 years**

4. BOOK PUBLISHED:

5. PATENTS PUBLISHED: MAGLEV CXD SYSTEM WITH SELF GENERATED ELECTRICITY IN TRAINS (APPL NO. 202221066693)

6. AWARDS AND ACHIVEMENTS:

- Best Image Award, Materials Today Cover Competition 2013 (I.F. = 26.41)
- Junior Research Fellowship on DRDO Major Research Project in 2012-2014
- Research Associate (CSIR-RA) fellowship by CSIR New Delhi in 2019-20.
- 1st prize in Avishkar 2012-2013. Post-graduation research project competition- (University level) Research category
- 1st prize in 2012-2013. Central research competition- (Central level) Research category
- 2nd prize Avishkar (Conventional) west zone (National level)- Research category, at Pune 2012-2013
- 2nd prize Avishkar 2013-2014. Post-graduation research project competition- Research category
- 1st prize in Avishkar 2013-2014. Central research competition (Central level)- Research category
- 1st prize in Avishkar 2014-2015. Post-graduation research project competition- (University level) Research category
- 1st prize in Avishkar 2014-2015. Central research competition (Central level)- Research category

- 1st prize in Avishkar 2016-2017. Central research competition (Central level)- Teacher category
- 2nd prize in Avishkar 2016-2017. State Level Inter university research competition (State level)- Teacher category
- Best Poster Presentation: 2nd prize, National Conference on Recent Trends in Physical, Chemical and Nanosciences-2017 (NCRT-PCNano-2017), 24 Jan 2017, Dept. of Physics, LBS College, Satara, MS. India.
- Best Poster Presentation: 1st prize, National Seminar on Nanoscience and Nanotechnology (NS-NSNT-2017), 11th Feb 2017, Dept. of Physics, SGM College, Karad, Satara, MS. India.
- Best Poster Presentation: 1st prize, National Conference on Recent Trends in Nanomaterials (NCRTN-2017), 28th Sept. 2017, Department of Nanoscience and Technology, Y. C. Institute of Science, Satara, M.S. India.
- Best Oral Presentation Award: 2nd Prize, National e-Conference on Emerging Trends in Physical Sciences, ACS College, Ramanandnagar, Palus, Dist- Sangali, M.S. India.
- Best Oral Presentation Award: 1st Prize, International e-Conference on Recent Trend in Nanomaterials and Its Applications (RTNA)-2021, on 9-10 April 2021 organized by Department of Physics, Vidnyan Mahavidyalaya, Sangola, M.S. India.
- RUSA Best Researcher Award: by SGM College Karad on 10 June 2023.

7. RESEARCH PAPER PRESENTED:

1. 54th DAE Solid State Physics Symposium, 14-18 Dec 2009 at University of Baroda, Vadodara.
2. National Seminar On Advanced Materials (NSAM -2010), 19-20 March 2010 at Department of Physics, Shivaji University Kolhapur
3. National seminar and Exhibition On Emerging Trends in Renewable Energy Technologies, 22 Oct 2010, Department of Technology, Shivaji University Kolhapur
4. National conference on Recent Trends in Harnessing of Non-Conventional Energy Resources 15-16 Dec 2010 at Vivekanand college, Kolhapur

5. National Symposium On Advances in Synthetic Methodologies and New Materials 21-22 Jan 2011, Department of Chemistry, Shivaji University, Kolhapur
6. National Seminar on Physics of Materials and Material based Devices Fabrication. 17-18 Feb. 2011, Department of Physics.
7. One-day seminar on Energy conversation techniques in industrial sector 27 July 2011, Shivaji University, Kolhapur
8. National conference on Recent trends in Materials Sciences 08-10 Oct 2011, Department of Physics, Jaypee University on Information Technology, Solan H.P.
9. 4thNano Bangalore International Conference, 7-9 Dec 2011, JNCSIR, Bangalore
10. 56thDAE-Solid State Physics Symposium, 19-23 Dec 2011, SRM University, Tamil Nadu.
11. International conference on Physics of Materials and Material based Devices Fabrication, 17-19 Feb. 2012, Department of Physics, Shivaji Univ. Kolhapur
12. National Conference on Recent Trends in Nanotechnology, 14-15 Dec 2012, Vivekanand College, Kolhapur.
13. 1stInternational Symposium on Physics and Technology of Sensors, 8-10 March 2012, C-MET Pune.
14. 2ndNational Seminar on Physics of Materials and Material based Devices Fabrication. 4-5 Jan 2013, Department of Physics, Shivaji Univ. Kolhapur.
15. International conference on Recent Trends in Applied Physics and Material Sciences, 01-02 Feb 2013, Govt. College of Engineering & Technology, Bikaner
16. Two Day Workshop on Nanovolts to Gigahertz: Measurement Challenges and Applications, 14-15 Feb 2013, University of Pune, Pune
17. International workshop on Nanotechnology & Advanced Functional Materials, 24-25 July 2013, CSIR-NCL, Pune
18. One Day Workshop on Organic Electronic Devices, 24 Sept 2014, Department of Technology, Shivaji University, Kolhapur.

19. 2nd International conference on Physics of Materials and Material based Devices Fabrication. 13-15 Jan 2014, Department of Physics, Shivaji University, Kolhapur.
20. International conference on Advanced and Applied Materials Sciences, 15-16 Jan 2014. (ICCAAMS-2014), Gopal Krishna Gokhale College, Kolhapur.
21. One-day workshop on Renewable Energy & Energy Efficiency, 13 Feb 2014, Department of Technology, Shivaji University, Kolhapur
22. National Seminar on Recent Trends in Biophysics, 19-20 Sept 2014, Devchand College, Nipani.
23. National Seminar on Materials for Future Technology, 26-27 Sept 2014, Rajaram College Kolhapur.
24. 3rd National Seminar on Physics of Materials and Material based Devices Fabrication, 19-20 Dec 2014, Department of Physics, Shivaji Univ. Kolhapur.
25. 1st International Symposium on Physics and Technology of Sensors, 8-10 March 2015, C-MET Pune.
26. International on Conference Materials Science and Ionizing Radiation Safety & Awareness (ICMSIRSA -2016) January 28-30, 2016 Shivaji University, Kolhapur.
27. National Conference on Recent Trends in Physical, Chemical and Nanosciences-2017 (NCRT-PCNano-2017), 24 Jan 2017, Dept. of Physics, LBS college, Satara, MS. India.
28. National seminar on Nanoscience and Nanotechnology (NS-NSNT-2017), 11 Feb 2017, Dept. of Physics, SGM College, Karad, Satara, MS. India.
29. International Conference on Crystal Ball Vision on Science and Engineering for Societal Upliftment, 7-8 August 2017, CSIR-NIO, Dona Paula, Goa, India.
30. National Conference on Recent Trends in Nanomaterials (NCRTN-2017), 28th Sept. 2017, Department of Nanoscience and Technology, Y. C. Institute of Science, Satara, M.S. India.
31. 3rd International Conference on Innovative Research in Science and Technology ICIRST, 7-8th, November, 2017, Gokhale College, Kolhapur, Maharashtra, INDIA

32. 2ndInternational Conference on Advances in Materials Science (ICAMS-2017) held on 22-23 December 2017, Jath, Sangali, M.S. India.
33. 3rdInternational Conference on Advances in Materials Science (ICAMS-2018) held on 27-29 December 2018, Jath, Sangali, M.S. India.
34. 3rdInternational conference on Physics of Materials and Material based Devices Fabrication. 10-13 Jan. 2019, Department of Physics, Shivaji Univ. Kolhapur, M.S. India.
35. 2ndNational Conference on “Convergence of Chemistry & Materials” (CCM-2019) December 17-18, 2019, BITS-Pilani, Hyderabad Campus, Hyderabad – 500078, India.
36. 1stInternational conference on “Smart Materials and Nanotechnology” (ICSMN-2020) during January 02-04, 2020, SKN SINHGAD COLLEGE OF ENGINEERING, Pandharpur, Maharashtra
37. 1stInternational conference on “Multifunctional and Hybrid Materials for Energy and Environment” (MHMEE-2020), 29-31 Jan. 2020, Department of Physics, YashavantraoChavan Institute of Science, Satara, M.S. India.
38. International Web Conference on Advanced Material Science & Nanotechnology (NANOMAT-2020), Department of Physics, VinayakVidnyanMahavidyalaya, NandgaonKhandeshwar, Dist. Amravati, Maharashtra, India during 20-21stJune 2020
39. National e-Conference on Emerging trends in Physical Sciences, Department of Physics, Arts, Science and Commerce College Ramanandnagar (Burlli), Tal- Palus, Dist- Sangli- 416 308 (Maharashtra) India on 23-07-2020
40. International Conference on Advanced Materials Science and Applications (Online)(ICAMSA-2020), Department of Physics, Ramaiah Institute of Technology, Bangalore -560054, Karnataka, India during 3-4 September, 2020.
41. 2nd International e-Conference on “Science & Technology for Society”, KHUMANG 2020, Organized by Manipur Technical University (MTU), Imphal&KangleiKhongyangThijinyon (KKT), Imphal during 9-11 Sept. 2020.
42. International Conference on Porous Materials for Energy and Environment (PMEE 2021) held atDepartment of Chemistry, Govt. College of Arts, Science and Commerce, Khandola Goa during 12thand 13thMarch 2021.

43. International Webinar on Sustainable Chemistry, organized by Association of Chemistry Teachers, Mumbai on 18 March 2021.
44. International e-Conference on Recent Trend in Nanomaterials and Its Applications (RTNA)-2021, on 9-10 April 2021 organized by Department of Physics, VidnyanMahavidyalaya, Sangola, M.S. India.
45. 6th International Conference on Advances in Materials Science (ICAMS-2021) held on 23-24 April 2021, organized by Raje Ramrao College, Jath, Sangali, M.S. India.
46. International e-Conference on ES Energy and Environment held on 27-30 May 2021 organized by ES Publisher USA.
47. National Conference on Advances in Functional & Sustainable Materials (AFSM-22) held on 8 April 2022 organized by Department of Physics, SGM College, Karad.
48. International conference on emerging photovoltaic materials and technologies (ICEPV-2022) held on 27-29 April 2022 organized by Department of Mechanical Engineering, Baskent University, Turkey.

8. RESEARCH PAPER/ REVIEW ARTICLE PUBLISHED:

1. Structural and magnetic properties of $\text{Co}_{1-x}\text{Mn}_x\text{Fe}_2\text{O}_4$ ($0 \leq x \leq 0.4$) spinel ferrites synthesized by combustion route, R.C. Kambale, P.A. Shaikh, **N.S. Harale**, V.A. Bilur, Y.D. Kolekar, C.H. Bhosale, K.Y. Rajpure, *Journal of Alloys and Compounds* 490 (2010) 568–571.
2. Exotic fern-like morphologies, 3D dendritic cassiterite for ultra-sensitive gas sensing, **N.S. Harale**, D.L. Kamble, M.G. Gang, V.K. Rao, J.H. Kim, and P.S. Patil, *Materials Today*, 16 (2013) 452-453.
3. Hydrothermally grown ZnO nanorods arrays for selective NO₂ gas sensing: Effect of anion generating agents, **N.S. Harale**, A.S. Kamble, N.L. Tarwal, I.S. Mulla, V.K. Rao, J.H. Kim, P.S. Patil, *Ceramics International* 42 (2016) 12807–12814.
4. Ultrasensitive gold nanostar–polyaniline composite for ammonia gas sensing, V. Kumar, V. Patil, A. Apte, **N. S. Harale**, P. Patil, S. Kulkarni, *Langmuir* 31 (2015) 13247–13256.

5. Anomalous behavior in electro-magnetic properties of CO-Mn ferrites, **N.S. Harale**, P.S. Jadhav, K.K. Patankar, R.C. Kamble and P.S. Patil, *British journal of engineering and technology*, 1 (2012) 1-10.
6. Spray deposited superhydrophobic ZnO coating via seed assisted growth, N.L. Tarwal, V.M. Khot, **N.S. Harale**, S.A. Pawar, S.B. Pawar, V.B. Patil and P.S. Patil, *Surface and coating technology* 206 (2011) 1336-1341.
7. Gas sensing performance of the spray deposited Cd-ZnO thin films, N.L. Tarwal, A.R. Patil, **N.S. Harale**, A.V. Rajgure, S.S. Suryavanshi, W.R. Bae, P.S. Patil, J.H. Kim and J.H. Jang, *Journal of Alloys and Compounds* 598 (2014) 282-288.
8. Nanoporous network of nickel oxide for ammonia gas detection, D.S. Dalavi, **N.S. Harale**, I.S. Mulla, V.K. Rao, V.B. Patil, I.Y. Kim, J.H. Kim and P.S. Patil, *Materials Letters* 146 (2015) 103-107.
9. Synthesis, structural, morphological, compositional and electrical transport properties of polyaniline/ α -Fe₂O₃ hybrid nanocomposites, D.K. Bandgar, S.T. Navale, S.A. Vanalkar, J.H. Kim, **N.S. Harale**, P.S. Patil and V.B. Patil, *Synthetic Metals* 195 (2014) 350-358.
10. Functionalized Multi-Walled Carbon Nanotubes for Nitrogen Sensor, S.H. Pisal, **N.S. Harale**, T.S. Bhat, H.P. Deshmukh and P.S. Patil, *IOSR Journal of Applied Chemistry (IOSR-JAC)* 7 (2014) 49-52.
11. Controlled growth of ZnO nanorod arrays via wet chemical route for NO₂ gas sensor applications, S.A. Vanalakar, V.L. Patil, **N.S. Harale**, S.A. Vhanalakar, M.G. Gang, J.Y. Kim, P.S. Patil and J. H. Kim, *Sensors and Actuators B* 221 (2015) 1195-1201.
12. Chemically synthesized nanoparticulate PbS thin films as a rapid NO₂ gas sensor, V.V. Burungale, R.S. Devan, S.A. Pawar, **N.S. Harale**, V.L. Patil, V.K. Rao, Y. R. Ma, J.E. Ae, J.H. Kim and P.S. Patil, *Materials Science-Poland* 34 (2015) 204-2011.
13. Effect of annealing on the properties of CTAB assisted lead tungstate, V.B. Patil, N.L. Tarwal, I.S. Mulla, **N.S. Harale**, P.S. Patil and S.S. Suryavanshi, *Material letters* 181 (2016) 350-353.
14. Spray Pyrolyzed Indium Oxide Thick Films as NO₂ Gas Sensor. S.P. Patil, V.L. Patil, S.S. Shendage, **N.S. Harale**, S.A. Vanalakar, J. H. Kim, P.S. Patil, *Ceramics International* 42 (14), 16160-16168.
15. Spray deposited ZnO: Au thin films for solar cell application, N.L. Tarwal, **N.S. Harale**, P.R. Jadhav, and P. S. Patil, *AIP Conf. Proc.* 1447 (2012) 393-394.
16. CdO and CdO-ZnO composite nanowires: Synthesis, characterization and ethanol gas response, A.S. Kamble, **N.S. Harale**, P.S. Patil, B.B. Sinha, K.C. Chung, *Conference*

17. Nanoflakes of β -Co(OH)₂ thin film for supercapacitor application, **N.S. Harale**, N.L. Tarwal, P.R. Jadhav, S.H. Pisal, I.S. Mulla, V.K. Rao and P.S. Patil, *Proceeding of International Conference on Recent Trends in Applied Physics and Material Science, AIP Conf. Proc. 1536 (2013) 515-516.*
18. Chemical functionalization of carbon nano tube, S.H. Pisal, **N.S. Harale**, S.A. Pawar, H.P. Deshamukh, and P.S. Patil, *Proceeding of International Conference on Recent Trends in Applied Physics and Material Science, AIP Conf. Proc. 1536 (2013) 249-250.*
19. Synthesis and characterization of chemically deposited ZnO nanorods for NO₂ gas sensing applications, S.A. Vanalakar, V.L. Patil, **N.S. Harale**, S.A. Vhanalakar, B.B. Kale, P.S. Patil and J.H. Kim, *Proceedings of 2nd International Symposium on Physics and Technology of Sensors*, 8-10th March, 2015, Pune, India.
20. Sensitive and selective NO₂ gas sensor based on WO₃ nanoplates, S. S. Shendage, V.L. Patil, S.A. Vanalakar, S.P. Patil, **N.S. Harale**, J.L. Bhosale, J.H. Kim, P.S. Patil, *Sensors and Actuators B 240 (2017) 426-433.*
21. Characterization and NO₂ gas sensing properties of spray pyrolyzed SnO₂ thin films, D. L. Kamble, **N. S. Harale**, V. L. Patil, P. S. Patil, L. D. Kadam, *Journal of Analytical and Applied Pyrolysis 127 (2017) 38-46.*
22. Single step hydrothermally grown nanosheets assembled tungsten oxide thin films for sensitive and selective NO₂ gas detection, **N.S. Harale**, D.S. Dalavi, S.S. Mali, N.L. Tarwal, S.A. Vanalakar, V.K. Rao, C.K. Hong, J.H. Kim, P.S. Patil, *Journal of Materials Science 53 (2018) 6094-6105.*
23. Single Facile green synthesis of In₂O₃ bricks and its NO₂ gas sensing properties, K. Pawar; V. Patil; N. Tarwal; **N.S. Harale**; J. Kim; P. Patil, *Journal of Materials Science: Materials in Electronics 29 (2018) 14508-14518.*
24. Waste tea residue as a low cost adsorbent for removal of hydralazine hydrochloride pharmaceutical pollutant from aqueous media: An environmental remediation, C.S. Patil, D.B. Gunjal, V. M. Naik, **N. S. Harale**, S.D. Jagadale, A.N. Kadam, P.S. Patil, G.B. Kolekar, A. H. Gore, *Journal of Cleaner Production 206 (2019) 407-418.*
25. Chemiresistive Ammonia Gas Sensor Based on Branched Nanofibrous Polyaniline Thin Films, A. B. Nagare, **N. S. Harale**, S. S. Mali, S. S. Nikam, P. S. Patil, C. K. Hong, A. V. Moholkar, *Journal of Materials Science and Materials in Electronics 30 (2019) 11878-11887.*

26. Facile synthesis of nanofibrous polyaniline thin films for ammonia gas detection, **N.S. Harale**, A.B. Nagare, S.S. Mali, M.P. Suryawanshi, K.K. Sharma, V.K. Rao, I.S. Mulla, C.K. Hong, J.H. Kim and P.S. Patil, *Journal of Electronic Materials* 49 (2020)1338.
27. 2-D to 3-D Conversion of WO₃ Nanostructures Using Structure Directing Agent for Enhanced NO₂ Gas Sensing Performance S. A. Beknalkar, V. L. Patil, **N. S. Harale**, M. P. Suryawanshi, A. P. Patil, V.B. Patil, J. H. Kim, P. S. Patil, *Sensors and Actuators A: Physical* 304 (2020) 111882.
28. Gas sensing performance of hydrothermally synthesized indium oxide microbricks, S. P. Patil, **N. S. Harale**, S. Kadam, V. L. Patil, S. S. Shendage, S. Jagadale, J. H. Kim, P. S. Patil, *Materials Today: Proceedings* 23, (2019) 147-153.
29. Enhanced photoelectrochemical cell performance of Co doped ZnO nanoparticles sensitized by affordable mixed dyes as sensitizer, D.A. Kumbhar, S.S. Kumbhar, **N. S. Harale**, S. D. Delekar, R. A. Nalawade and M. Nalawade, *Inorganic and Nano-metal chemistry* 1 (2020) 1-14.
30. Adsorption of toxic Pb (II) on activated carbon derived from agriculture waste (Mahogany fruit shell): isotherm, kinetic and thermodynamic study, S. A. Patil, U. P. Suryawanshi, **N. S. Harale**, S. K. Patil, M. M. Vadiyar, M. N. Luwang, M. A. Anuse, J. H. Kim, S. S. Kolekar, *International Journal of Environmental Analytical Chemistry*(DOI: 10.1080/03067319.2020.1849648).
31. Hydrothermal Synthesis of NO₂ Gas Sensitive and Hydrophobic Zinc Oxide Thin Films, M. N. Padvi¹, **N. S. Harale**, P. S. Patil, S. D. Dhas, A. V. Moholkar *Journal of Materials Science: Materials in Electronics*, 32 (2021) 3140–3154 .
32. Fabrication of high energy density supercapacitor device based on hollow Iridium oxide nanofibers by single nozzle electrospinning, S. A. Beknalkar, A. M. Teli, **N. S. Harale**, D. S. Patil, S. A. Pawar, J. C. Shin, P. S. Patil, *Applied Surface Science*, 546 (2021) 149102.
33. Rapid synthesis of ambient pressure dried tetraethoxysilane based silica aerogels, V. V. Ganbavle, A. S. Kalekar, **N. S. Harale**, S. S. Patil, S. L. Dhere, *Journal of Sol-Gel Science and Technology*, 97 (2021) 5-10.
34. Supercapacitive Performance of SILAR Grown Mn₃O₄ Nanoclusters: Effect of Cationic Precursor Concentration, S. A. Beknalkar, A. M. Teli, **N. S. Harale**, D. S. Patil, J. R. Sutar, J. C. Shin, P. S. Patil, *Chinese Journal of Physics* 72 (2021)145-158
35. Effect of Mn²⁺ substitution into the host lattice of ZnO via sol-gel route for boosting the dye-sensitized solar cells performance, D. Kumbhar , S. Kumbhar , A. Dhodamani , S. Delekar , **N. Harale** , R. Nalawade, A. Nalawade, *Chemical letters* 75 (2021)4001–4017.

36. Effect of electron beam irradiation on EIS and photoelectrochemical performance of electrodeposited nanocrystalline Bi₂Te₃ thin films, J. B. Thorat, **N. S. Harale**, I. A. Dhole, S. K. Shinde, M. C. Rath, T. J. Shinde, N. S. Shinde, V. J. Fulari, *Journal of Materials Science: Materials in Electronics* 32 (2021) 20031-20046.
37. Enhanced photoelectrochemical cell performance of Co doped ZnO nanoparticles sensitized by affordable mixed dyes as sensitizer, D. Kumbhar, S. Kumbhar, A. Dhodamani, S. Delekar, **N. Harale**, R. Nalawade, A. Nalawade, *Inorganic and Nano-Metal Chemistry* 51 (2021) 1258-1271.
38. Plasmonic DSSC performance of spray deposited Ag-ZnO and Au-ZnO films, N. L. Tarwal, V. L. Patil, J. R. Rani, K. V. Gurav, J. S. Shaikh, M. S. Khandekar, **N. S. Harale**, P. S. Patil, J. H. Jang, *Chinese Journal of Physics*, 73 (2021) 581-588.
39. Hierarchical ITO nanofibers coated Mn₃O₄ nanoplates core-shell nanocomposites for high performance all-solid-state symmetric supercapacitor device, S. A. Beknalkar, A. M. Teli, **N. S. Harale**, K. K. Pawar, D. S. Patil, J. C. Shin, P. S. Patil, *Ceramics International* 47 (2021) 29771-29785
40. Construction of IrO₂@Mn₃O₄ core-shell heterostructured nanocomposites for high performance symmetric supercapacitor device, S. A. Beknalkar, A. M. Teli, **N. S. Harale**, J. C. Shin, P. S. Patil, *Journal of Alloys and Compounds*, 887 (2021) 161328.
41. Adsorption of toxic crystal violet dye from aqueous solution by using waste sugarcane leaf-based activated carbon: isotherm, kinetic and thermodynamic study, S. A. Patil, P. D. Kumbhar, **N. S. Harale**, S. C. Bhise, S. K. Patil, S. S. Kolekar, M. A. Anuse, *Journal of the Iranian Chemical Society*, 19 (2022) 2891-2906.
42. Mn₃O₄ based materials for electrochemical supercapacitors: Basic principles, charge storage mechanism, progress, and perspectives, S. A. Beknalkar, A. M. Teli, T. S. Bhat, K. K. Pawar, S. S. Patil, **N. S. Harale**, J. C. Shin, P. S. Patil, *Journal of Materials Science & Technology*, 130 (2022) 227-248.
43. Facile synthesis of nanogranular PPy thin films for sensitive and selective detection of toxic NO₂ gas, A. B. Nagare, **N. S. Harale**, S. D. Dhas, U. V. Shembade, S. R. Ghatage, P. S. Patil, A. V. Moholkar, *Inorganic Chemistry Communications*, 146 (2022) 110067.
44. Synthesis and evaluation of 3D MoO₃ nanobelts for selective detection of NO₂ gas, D. B. Sabale, N. S. Harale, R. Srivastava, P. S. Patil, K. K. K. Sharma, *Journal of Materials Research* 37 (2023), 4284-4295.

9. SEMINAR / CONFERENCE/ WROKSHOP ATTENDED:

1. One Day National online seminar on "Recent Trends in Materials Research" organized by Department of Physics on 29th July 2020.
2. International webinar on "Oxygen Electrocatalysis: The Holy Grail of Energy Conversion and Storage, on 29 June 2020 organized by Chennai Institute of Technology, Chennai.
3. One Day International online workshop on "Nanomaterials Synthesis is Emerging Facts of the world on 20 May 2020 organized by Late PushapadeviPatil Arts and Science College Risod, Washim Maharashtra.
4. International E0Conference on "Multifunctional Advance Materials (ICMAM2020) on 7th Aug 2020 organized by Mahatma Gandhi College, Armori, Gadchiroli, Maharashtra.
5. Two-day National online workshop on "Nanomaterials for Human Safety and Environment, during 15-16 May 2020 organized by KME Society's G. M. Momin Women's College, Mumbai.
6. Two days National webinar on "Instrumental Methods for Analysis" during 17-18 Oct 2020 organized by Kamla Neharu Mahavidyalaya Nagpur.
7. National Webinar on "Raman Effect and its Applications" on 25th June 2020 organized by the Department of Studies in Physics, Davangere University, Davangere, Karnataka.
8. International web Seminar on "Novel Applications on Nanomaterials" on 18th July 2020 organized by Dr. N. D. Patil Mahavidyalaya Malkapur, Shahuwadi, Kolhapur, Maharashtra.
9. Webinar Lecture Series on "Modern Physics and Materials Science" held during 26th to 30th May 2020 organized by Govern Holkar College, Indore.
10. Webinar Series, "Water Challenges During and Post COVID-19, during 1-28 May 2020 organized by ICCW.
11. International Virtual Conference on Advanced Materials (IVCAM 2020) held on 21st July 2020 organized by Basavaprabhu Kore Arts, Science and Commerce College Chikodi, Karnataka.
12. National Webinar on "Learning Physics: Opportunities in Difficulties" on 26th June 2020 organized by D.B.F. Dayanand College, Solapur.
13. National Webinar on "Preparation of NET/SET Examination on 6th July 2020 organized by Dept. of Chemistry, Rajashri Chhatrapati Shahu College, Kolhapur.

14. National webinar on "Design, Development & Implementation of Project Methodologies" on 11th July 2020 organized by AISSMS College of Engineering, Pune.
15. International Webinar on "Recent Scenario in Energy Generation and Storage Technologies" (IWRSEGST-2020) organized by Dahiwadi College Dahiwadi on 5th Sept. 2020.
16. National e-Seminar on "Covid 19: Impact, Challenges and Innovations in Education Systems and NAAC during 3rd- 4th June 2020 Organized by Late Karmaveer Dr. P. R. Ghogrey Science College, Dhule.
17. Virtual International Poster Conference on COVID-19 (VIP-C-COVID: Impact and Response) on 12-13 June, 2020 organized by Karmaveer Hire Arts, Science, Commerce and Education College, Gargoti, Tal - Bhudargad, Dist - Kolhapur, M.S. India.
18. Online National Webinar on "Smart Tools for Enhancing the Research Skills" on 28th May, 2020 jointly organized by Department of Library, Matru Sewa Sangh Institute of Social Work, Nagpur and Bar. Sheshrao Wankhede Mahavidyalaya, Mohpa Dist-Nagpur.
19. Webinar Series on "Beyond the Boundaries: Reinventing Horizons" during 16-20 May 2020 organized by Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT Jaipur, Rajasthan).
20. National Webinar on "Nanomaterials for Sensing & Electronic Applications" on 30th July 2020 organized by Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal, and School of Nanotechnology, UTD-RGPV, Bhopal, Madhya Pradesh.
21. National Webinar on "Waste to Energy Generation: Materials and Techniques" on 29th Aug 2020 organized by Pratap University, Jaipur, Rajasthan.
22. National webinar on "Optical Sensors" on 3rd June 2020 organized by SGT University, Gurugram, Dehli-NCR.
23. National webinar on "Advances in Synthesis Techniques & Characterization of Materials" held during 24-29th June 2020 organized by Tuljaram Chaturchand College, Baramati, Maharashtra.
24. National webinar on "Rare-Earth Doped Nanomaterials for.....Biological Applications" on 8th June 2020 organized by Dept. of Chemistry, Mizoram University, Aizwl, Mizoram.
25. Two days International Symposium on "New Research Horizons in Nano and Radiation Materials" during 10th-11th Sept 2020 organized by Dada Patil Mahavidyalaya Karjat, Ahmednagar, Maharashtra.

26. One Day National e-Seminar on "Recent Advances in Chemical Sciences" organized by Department of Chemistry and IQAC of Krishna Mahavidyalaya, Rethare Bk. held on 29th August 2020.
27. National webinar on "Research Methodology" on 15 June 2020 organized by Y. C. College, Ambajogai, Beed, Maharashtra.
28. International webinar on "Innovative Research in Chemical science for Sustainable Development" on 24th Sept 2020 organized by K. M. C. College, Khopoli, Raigad, Maharashtra.
29. National Webinar on "Biodiversity and its Conservation" on 22 May 2020 organized by Department of Botany, Raje Ramrao Mahavidyalaya, Jath - 416 404, Dist: Sangli, Maharashtra, India.
30. National webinar on "Recent Trends in Computer Science Research" during 1st-2nd June 2020 organized by Dr. Annasahen G. D. Bendale Mahila Mahavidyalaya, Jalgoan, Maharashtra.
31. Two Days International E-Conference on "Advanced functional Nanomaterials and Their Device Applications" on 10th August, 2020 organized by Krishna Mahavidyalaya, Rethare Bk Shivnagar-415 108, Tal: Karad, Dist: Satara.
32. International webinar on "Supercapacitors" by Dr. Libu Manjakkal, University of Glasgow, UK organized by the Department of Physics, Christ College (Autonomous) Irinjalakuda on 03-08-2020
33. Two days National Webinar on "Instrumental methods of Analysis" organized by the Department of Chemistry, KARE, Krishnankoil on 18 Oct 2020.
34. National online Seminar on "Allied Materials and their Applications" organized by the Department of Physics, Shahu College, Kolhapur on 19 June 2020.
35. International E-Conference on Multifunctional Advanced Materials (ICMAM-2020) held on 07 August 2020 organized by Mahatma Gandhi Arts Science and N. P. Commerce College, Armori.
36. One day one day International Seminar on "Energy Storage and Conversion Devices" organized by K. B. Patil College, Vashi on January 12, 2021.
37. International E-Conference on Recent advances in chemical, Physical and Biological sciences held on 29-30 June 2021 organized by Nabira Mahavidyalaya Katol, M. S.
38. International Webinar on Energy, Sustainability and New Materials on Tuesday, 5th Oct. 2021 Organized by S. M. Joshi College Hadapsar, Pune.
39. National e-Conference on Advanced Materials and Applications (AMA-2021) held on 23 Oct. 2021 organized by Maharshi Parshuram College of Engineering, Velneshwar.

40. National Conference on Advances in Functional & Sustainable Materials (AFSM-22) held on 8 April 2022 organized by Department of Physics, SGM College, Karad.
41. International symposium on nanotechnology for healthcare held on 10 June 2022 Organized by Medical Science Division, Oxford (UK).
42. Two Days International Workshop on “Recent Trends in Nuclear Science & Material Science” organized by arts, commerce and science college, Kille-Dharur, Dist. Beed on 5th& 6th September 2022.
43. National webinar on “Webinar Series on Materials for Energy and Environment (WSMEE-22) organized by Department of Physics, St. Joseph's College, Trichy.

10. WORK AS RESOURCE PERSON:

- Guest Lecture at Department of Physics, LalBahadurShastri College –Satara.
- Guest Lecture at Department of Nanoscience and technology Y.C.I.S. Satara.
- External examiner for B.Sc. III practical examination, Department of Nanoscience and technology Y.C.I.S. Satara. 18 Feb 2018.
- External examiner for B.Sc. III practical examination, Department of Nanoscience and technology Y.C.I.S. Satara, 12 March 2019.
- Guest Lecture at Department of Physics, T. C. College, Baramati, 20 March 2021.
- Guest Lecture at Department of Physics, Y.C.I.S. Satara, 03 April 2021.
- Invited Talk in FDP on Recent Trends in Engineering Physics, at RIT Islampur on 9 July 2021.
- Invited Talk at ShriParvati Shankar Vidyalaya, Uttur on 12 Feb 2022
- Invited Talk in Hands on Training Workshop on “Advanced Techniques in Nanoscience and Nanotechnology at Nanoscience and Technology Department, Shivaji University, Kolhapur on 13 March 2022.
- External examiner for M.Sc. I practical examination, Department of Physics, Y.C.I.S. Satara, 4-5 June 2022.
- Guest Lecture at Department of Physics, KBP College, Islampur, 02 June 2022.
- Invited Talk in Hands on Training Workshop at SGM College Karad during 5-10 Nov 2022.
- Invited Talk on “How to Convert Project into Publication” at KRP College, Islampur on 01 Dec 2022.

- Invited Talk on “Nanofiber:Wounderfull Nanomaterial” at Department of Nanoscience and Nanotechnology, Y.C.I.S. Satara, 06 May 2023.
- External examiner for B.Sc. III practical examination, at Department of Nanoscience and Nanotechnology, Y.C.I.S. Satara, 06 May 2023.
- External examiner for M. Sc. I practical examination, at Department of Physics, Shivaji University, Kolhapur on 29 May 2023.
- Reviewer for Journals: Processes, Nanomaterials, Coatings, Micromachines, Solid State Ionics, International Journal of Environmental Analytical Chemistry etc.

11. MEMBER OF ORGANIZING COMMITTEE:

- Member of Materials Research Society of India (MRSI).
- Working as IPR coordinator of Sadguru Gadage Maharaj College, Karad, Maharashtra
- Working as coordinator for Self Finance and Dual Courses of SadguruGadageMaharaj College, Karad, Maharashtra
- Working as committee member for Board of Studies (BOS) in Physics subject at SadguruGadageMaharaj College, Karad, Maharashtra
- Working as committee member for “Innovation, Incubation & Invention Cell” of SadguruGadageMaharaj College, Karad, Maharashtra.
- Working as committee member for NAAC of SadguruGadageMaharaj College, Karad, Maharashtra.
- Convener of Five Days National Virtual Workshop on Preparation of Physics NET/SET Examorganized by Department of Physics & IQAC of S.G.M. College, Karad on 29th July 2020 to 02nd August 2020.
- Organizing Secretary of Two Days International E-Conference on Cutting Edge Smart Materials & Nanotechnology organized by Department of Physics & IQAC of S.G.M. College, Karad on 20th Aug. 2020 & 21st Aug. 2020.
- Coordinator for one day National conference on “Advances in Functional and Sustainable Materials (AFSM-2022) on 8 April 2022.
- Program Committee Member of National Seminar on Physics of Materials and Material based Devices Fabrication. 17-18 Feb. 2011, Department of Physics, Shivaji University, Kolhapur

- Program Committee Member of International conference on Physics of Materials and Material based Devices Fabrication. 17-19 Feb. 2012, Department of Physics, Shivaji Univ. Kolhapur.
- Program Committee Member of 2nd National Seminar on Physics of Materials and Material based Devices Fabrication. 4-5 Jan 2013, Department of Physics, Shivaji Univ. Kolhapur.
- Program Committee Member of One Day Workshop on Organic Electronic Devices, 24 Sept 2014, Department of Technology, Shivaji University, Kolhapur.
- Program Committee Member of 2nd International conference on Physics of Materials and Material based Devices Fabrication. 13-15 Jan 2014, Department of Physics, Shivaji University, Kolhapur.
- Program Committee Member of 3rd National Seminar on Physics of Materials and Material based Devices Fabrication, 19-20 Dec 2014, Department of Physics, Shivaji Univ. Kolhapur.
- Program Committee Member of International on Conference Materials Science and Ionizing Radiation Safety & Awareness (ICMSIRSA-2016) January 28-30, 2016 Shivaji University, Kolhapur.
- Program Committee Member of Avishkar Research Competition 2017-18, Shivaji University, Kolhapur.
- Poster and Oral presentation examiner in 1stInternational conference on “Multifunctional and Hybrid Materials for Energy and Environment” (MHMEE-2020), 29-31 Jan. 2020, Department of Physics, YashwantraoChavan Institute of Science, Satara, M.S. India.
- Worked as Teaching Assistant in Department of Physics, Shivaji University, Kolhapur.
- Worked as an Expert for Avishkar competition 2022-23.

12. ORIENTATION/REFRESHER/FDP/WORKSHOP ATTENDED

1. Completed 23rd Refresher course in Experimental Physics, 5-20th Oct 2010 at Department of Physics, Shivaji University, Kolhapur.
2. One Week Online Faculty Development Programme (FDP) On "Modern Teaching, Evaluation and Research Methods (MTERM)" on 28-31st May 2020.

3. Five-day online FDP on "Evolution from Offline to Online Teaching" during 30thMay to 3rdJune 2020 organized by Satish Pradhan Dnyanasadhana College, Thane, Maharashtra.
4. Three Days online FDP on "Physics of Materials" during 28thto 30thMay 2020 organized by Department of Physics, Faculty of Engineering & Technology, JAIN Deemed-to-be-University, Bengaluru, Karnataka.
5. One Week Online FDP "Evolution of Functional Materials and Its Effective Characterization towards Diverse Engineering Applications" 22nd - 29th JUNE 2020 organized by Kumaraguru College of Technology, Coimbatore, Tamil Nadu.
6. One Week Pedagogical Training for Teachers on Tools for Online Teaching Learning and Evaluation, from 1stto 6th July 2020, organized by School of Mathematical Sciences, Swami Ramanand Teerth Marathwada University, Nanded.
7. One-week WEB-FDP On "NANOSCIENCE AND TECHNOLOGY" from 24.06.2020 to 29.06.2020 organised by Department of physics, Government college of technology, Coimbatore.
8. Online FDP on "E-Content Development for Teaching and Learning", 20-25thJuly 2020 organized by SGM College, Karad, Dist- Satara, Maharashtra.
9. Five Days FDP on "Nanomaterials Characterization Techniques and Results Analysis Methodology: Ideas, Innovations and Initiatives, 27-31 July 2020, organized by N. N. Arts D. J. Malpani Commerce & B. N. Sarda Science College, Sangamner, Maharashtra.
10. One-week workshop on "Materials Technology Advancement in Current Scenario-MATCS2020" during 4th -10th July 2020 organized by Dept. of Physics, Sathyabama Institute of Science and Technology, Chennai.
11. Two Day Online National level FDP on "Virtual Physics Labs" on 4th& 5th June 2020 organized by Malla Reddy Institute of Engineering & Technology, Secunderabad, Telangana.
12. 16 weeks online refresher course "Leadership and Governance in Higher Education. Level 2" conducted by SavitribaiPhule Pune University Pune and SWAYAM-NPTEL during 1 Dec2020 to 31 March 2021.
13. Three days FDP on ICT tool for effective learning, conducted by Kamla Neharu Mahavidyalaya, Nagpur during 8-10 June 2021.
14. Three Days FDP on Recent Trends in Engineering Physics conducted by Department of Science & Humanities (Diploma), Rajarambapu Institute of Technology, Rajaramnagar, Islampur during 8-10 July 2021.

15. 28 days “4th Faculty induction Programme” conducted by UGC-HRDC, Pondicherry University, Pondicherry during 04 Aug 2021 to 2 Sept 2021.
16. One Week FDP on “Implementation of National Education Policy: Challenges and Opportunities in HEIs” organized by Late Sow. Kamaltai Jamkar Mahila Mahavidyalaya, Parbhani, during 24 - 30 August, 2022.
17. Two-Week Refresher Course on “Managing Online Classes & Co- creating MOOCS 24.0” organized by Ramanujan College, University of Delhi during 11 - 25 March, 2023
18. Two-Week Refresher Course on “Physics” organized by Ramanujan College, University of Delhi during 09 – 23 June, 2023

13.ONLINE COURSES

1. One Week Online Course on “An Introduction to Materials Characterization Techniques” from 22nd June 2020 to 28th June 2020 conducted by Department of Physics, K. J. Somaiya College of Science and Commerce, Mumbai.
2. Eight weeks Online Course on Solar Photovoltaics: Principles, Technologies & Materials conducted by SWAYAM-NPTEL dated from 18 Jan 2021 to 12 March 2021.
3. Five Days online Short Term Course on “Astrophysics” organized by Department of Physics D.B.J. College, Chiplun from dated 17th to 21st January 2021.
4. Five Days UGC-STRIDE online lecture series organized by department of Physics, Shivaji University, Kolhapur during 7-10 April 2021.
5. One week online Short Term Course on "Renewable Energy & Effluent Treatment" (REET-2021)" during 1- 5 April 2021 organized by Department of Chemical Engineering, Institute of Engineering & Technology, Lucknow-226021 (UP) INDIA.
6. Four weeks Online Course on “Structural Analysis of Nanomaterials” conducted by SWAYAM-NPTEL dated from 25 July 2022 to 19 Aug 2022.
7. Four weeks Online Course on “Selection Of Nanomaterials For Energy Harvesting And Storage Application” conducted by SWAYAM-NPTEL dated from 24 July 2023 to 18 Aug 2023.
8. Twelve weeks Online Course on “Physics of Functional Materials & Devices” conducted by SWAYAM-NPTEL dated from 24 July 2023 to 13 Oct 2023.

14. MEMBERSHIP AND OTHER CHARGE

- Member of Materials Research Society of India (MRSI).
- Working as **IPR coordinator** of Sadguru Gadage Maharaj College, Karad, Maharashtra
- Working as coordinator for Self Finance and Dual Courses of Sadguru Gadage Maharaj College, Karad, Maharashtra
- Working as committee member for Board of Studies (BOS) in Physics subject at Sadguru Gadage Maharaj College, Karad, Maharashtra
- Working as committee member for “Innovation, Incubation & Invention Cell” of Sadguru Gadage Maharaj College, Karad, Maharashtra.
- Working as committee member for NAAC of Sadguru Gadage Maharaj College, Karad, Maharashtra.
- Convener of Five Days National Virtual Workshop on Preparation of Physics NET/SET Exam organized by Department of Physics & IQAC of S.G.M. College, Karad on 29th July 2020 to 02nd August 2020.
- Organizing Secretary of Two Days International E-Conference on Cutting Edge Smart Materials & Nanotechnology organized by Department of Physics & IQAC of S.G.M. College, Karad on 20th Aug. 2020 & 21st Aug. 2020.
- Coordinator for one day National conference on “Advances in Functional and Sustainable Materials (AFSM-2022) on 8 April 2022.
- **Convener** for two days International conference on "Innovation in smart and technomaterials" on 16-17 Jan 2023 at SGM College Karad.
- Program Committee Member of National Seminar on Physics of Materials and Material based Devices Fabrication. 17-18 Feb. 2011, Department of Physics, Shivaji University, Kolhapur
- Program Committee Member of International conference on Physics of Materials and Material based Devices Fabrication. 17-19 Feb. 2012, Department of Physics, Shivaji Univ. Kolhapur.
- Program Committee Member of 2nd National Seminar on Physics of Materials and Material based Devices Fabrication. 4-5 Jan 2013, Department of Physics, Shivaji Univ. Kolhapur.
- Program Committee Member of One Day Workshop on Organic Electronic Devices, 24 Sept 2014, Department of Technology, Shivaji University, Kolhapur.

- Program Committee Member of 2nd International conference on Physics of Materials and Material based Devices Fabrication. 13-15 Jan 2014, Department of Physics, Shivaji University, Kolhapur.
- Program Committee Member of 3rd National Seminar on Physics of Materials and Material based Devices Fabrication, 19-20 Dec 2014, Department of Physics, Shivaji Univ. Kolhapur.
- Program Committee Member of International on Conference Materials Science and Ionizing Radiation Safety & Awareness (ICMSIRSA-2016) January 28-30, 2016 Shivaji University, Kolhapur.
- Program Committee Member of Avishkar Research Competition 2017-18, Shivaji University, Kolhapur.
- Poster and Oral presentation examiner in 1stInternational conference on “Multifunctional and Hybrid Materials for Energy and Environment” (MHMEE-2020), 29-31 Jan. 2020, Department of Physics, Yashwantrao Chavan Institute of Science, Satara, M.S. India.
- Worked as an Expert for Avishkar competition 2022-23.

Name: Dr. Namdev Shankar Harale