FACULTY PROFILE

1.	Name	Dr. Dhanaji Suresh Dalavi
2.	Department	Physics
3.	Qualification	M.Sc., Ph.D.
4.	Title of Thesis	"Synthesis and characterization of nanostructured NiO thin films
		and their electrochromic properties"
5.	Designation	Assistant Professor
6.	Specialization	Solid State Physics / Material Science
7.	Mobile No	(R)+91-9527350402,
8.	Date of Birth	11 th January 1984
9.	Email	dhanuphysics@gmail.com
10.	Teaching Experience	09 Years
11.	Research Experience	12 years
12.	Membership in	-
	University	
13.	Membership in College	Head, Department of Physics
		IQAC Coordinator
		Member of the Standing Committee
		Member of the College Development Committee.
		Certificate Course Coordinator
		Member of the Admission Committee.
		Member of the Competitive Examination Committee.
		Member of College Mentor of SWAYAM.
		Member of the Incubation Centre Committee.
		Member of Nature Club Committee.
		Member of Green Army Committee.
		Member of Skill Development Committee.
		Member of Avishkar Research Convention.
		Member of the e-content Development Committee.
		Member of the RUSA committee.
14.	Membership of	Member of Shivaji University Teachers Association (SUTA).
	professional bodies	Member of All India Physics Teachers Association (IAPT)
15.	Awards received	1. First Oral Presentation Award at International conference on
		"Recent Trends in Materials Science-Synthesis,
		Characterization and Applications", Tuljaram Chaturchand
		Arts, Science and Commerce, Baramati 3 rd – 4 th January, 2023.
		2. Best Poster Presentation Award at International conference on
		Chemistry, Environment and Energy, Yashwantrao Chavan
		Institute of Science, Satara on 16 th -18 th February 2019.
		3. Rajiv Gandhi Junior Research Fellowship from 1st July 2008 to
		30 June 2010.
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		4. Rajiv Gandhi Senior Research Fellowship from 1 st July 2010 to 13 th Feb 2013.
		5. Recipient of Dr. D. S. Kothari's Post-Doctoral Fellowship
		sponsored by UGC.
		6. Recipient of Post-Doctoral Fellowship sponsored by Ministry
		of Economy, South Korea.
		7. Excellent poster award, IUMRS-ICA-2011, Taiwan.
16.	Refresher/Orientation	1. Short-term course on e-content development and open
	Courses	educational resources (online), UGC-HRDC, Goa University,
		Goa from 11/08/2022 to 18/08/2022.
		2. Short-term Faculty Development course on "Active learning
		in Optics and Photonics, UGC-HRDC, Savitribai Phule
		University, Pune Conducted by Defence Institute of Advance
		Technology (DU), Girinagar, Pune from 08/12/2019 to
		13/12/2019 under the scheme of Pandit Madan Mohan
		Malaviya National Mission on Teachers and Teaching.
		3. Online short-term course in Basics of Quantum Mechanics,
		Indian Institute of Technology Kanpur on 15 th August 2019 to 18 th November 2019.
		4. Online short-term course in Basics of Special Theory of
		Relativity, Indian Institute of Technology Kanpur on 18 th Dec
		2018 to 8th March 2019.
		5. Interdisciplinary Refresher Course in Environmental Science
		(Physics, Chemistry, Ecology, Earth Sciences and
		Oceanography), UGC-HRDC, Pondicherry University,
		Pondicherry, 10th July to 30th July 2018.
		6. 87th Refresher course in Experimental Physics, Goa
		University, Goa, 10 th May to 25 th May 2017.
		7. Orientation Course: 93 rd Orientation Course, University of
		Hyderabad, Hyderabad from 26th Nov 2015 to 28th Dec
		2015.
17.	Seminars/colloquium/	Seminars:
	workshop/conference	1. One Day National online seminar on "Recent Trends in
	s-Attended/	Materials Research" organized by Department of Physics,
	Participated	Balwant College, Vita on 29th July 2020.
		2. Attended and actively participated in two days National
		seminar on Revised Accreditation framework of NAAC: A
		Paradigm Shift organized by S.G.M College, Karad on 4-5 th
		February, 2020.
		3. Attended and actively participated in one day seminar on
		National Education policy (2019) Jointly organized by
		Shivaji University Teachers Association and K. R. P. Kanya
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- College, Islampur on 08th March, 2020.
- 4. Spray Deposition of CeO₂-TiO₂ Thin Films and Their Performance as Optically Passive Counter Electrode, D. S. Dalavi, J. K. Mali, G. G. Gurav, P. S. Patil, National seminar on Nanoscience and Nanotechnology held at Department of physics, Sadguru Gadge Maharaj College, Karad 11th February 2017.
- 5. Attended and actively participated in one-day state-level seminar on "Defined Contributory Pension Scheme (D.C.P.S)" organized by Shivaji University Teachers Associations (SUTA), Kolhapur held at Yashwantrao Chavan Institute, Satara, 13th August 2017.
- 6. Electrochromic performance of sol-gel deposited WO₃ thin film, <u>Dhanaji S. Dalavi</u>, Namdev S. Harale, Anup J. More, Pramod S. Patil, National Seminar on Physics of Materials and Materials Based Device Fabrication, 19-20th Dec 2014, Department of Physics, Shivaji University, Kolhapur.
- Nanostructured electrodeposited WO₃ thin films for smart window application, D. S. Dalavi, S. S. Pol, S. S. Kalagi, R. S. Patil, P. S. Patil, National Seminar on Physics of Materials and Materials Based Device Applications (NSPM-MDF-2011), 17-18th Feb, 2011.
- 8. Hierarchical nanostructure of NiO thin film and its electrochromic performance, D. S. Dalavi, S. S. Pol, S. S. Kalagi, N. L. Tarwal and P. S. Patil, Jan 21-22, 2011 Advances in Synthetic Methodologies and New Materials. Dept. of Chemistry Shivaji University, Kolhapur.
- 9. National Seminar and Exhibition on "Emerging Trends in Renewable and Non-Renewable Energy Technologies" 22nd Oct, 2010, Shivaji University, Kolhapur.
- 10. Surfactant Mediated Growth of NiO thin films and its electrochromic performance. D. S. Dalavi, S. S. Kalagi, P. S. Patil, National Seminar on Advanced Materials-2010 (NSAM), 19th-20th Mar, 2010, National Seminar on Advanced Materials-2010 (NSAM), Dept. of Physics, Shivaji University Kolhapur.
- 11. Surfactant Assisted growth of chemically bath deposited Nickel oxide thin films and its electrochromic performance, D. S. Dalavi, M. J. Suryavanshi, D. S. Patil, S. S. Kalagi, P.S. Patil, NCSSI 9-11th Dec 2009.

Colloquium:

Workshop:

1. Attended and actively participated in One Day online

- workshop on "New Changed Syllabus of B.Sc.-III Physics (CBCS), Paper-XI and Paper-XIV" organized by the Department of Physics, Patangrao Kadam Mahavidyalaya, Sangli on 12th February, 2021.
- 2. Attended and actively participated in One Day online workshop on "Changed Syllabus in Physics at B.Sc.-III Sem-VI for Courses DSE-F1 & F3" organized by the Department of Physics, Dattarjirao Kadam Arts, Commerce and Science College, Ichalkaranji on 9th February, 2021.
- 3. Attended and actively participated in One Day online workshop on ""New changed syllabus of B.Sc.Part-III, Physics (CBCS) Paper No IX and Paper No XII" organized by the Department of Physics, Raharshi Chhatrapati Shahu Maharaj College, Kolhapur on 3rd February, 2021.
- 4. Attended and actively participated in One Day online workshop on ""New changed syllabus of B.Sc.Part-III, Physics (CBCS) Laboratory experiments Group-I to VI" organized by the Department of Physics, Balwant College, Vita on 1st February, 2021.
- 5. Attended and actively participated in one day workshop on 'NAAC- Revised Accreditation Framework' organized by Yashavantrao Chavan Institute of Science, Satara on 1st June, 2020.
- Attended and actively participated in one day workshop on New changed syllabus (CBCS) of B.Sc. Part-II, Physics held at Yashwantrao Chavan College of Science, Karad, 21st August, 2019.
- 7. Attended and actively participated in one day workshop on New changed syllabus (CBCS) of B.Sc. Part-II, Physics held at Arts Science and Commerce College, Ramanandnagar (Burli), 23rd August, 2019.
- 8. Attended and actively participated in one day workshop on New changed syllabus (CBCS) of B.Sc. Part-I, Physics held at D. P. Bhosale college, Koregaon, 24th August, 2018.
- Attended and actively participated in one day workshop on New changed syllabus (CBCS) of B.Sc. Part-I, Physics held at Yashwantrao Chavan College of Science, Karad 20th August, 2018.
- 10. Attended and actively participated in one day workshop on "Revised API system" (4th Amendment) organized by Shivaji University Teachers Association (Kolhapur), on 13rd Feb, 2018 at Dev Celebration Hall, Islampur, Dist Sangli.
- 11. Attended and actively participated in the workshop on "all

- India survey on higher education" held at Lal Bahadur Shastri College, Satara, 20th January, 2017.
- 12. Attended and actively participated in the workshop on "The Maharashtra Public Universities Act, 2016" organized by Shivaji University Teachers Association (SUTA), held at Balwant College, Vita, Dist: Sangli, 5th February, 2017.
- 13. Attended and actively participated in the workshop on Revised syllabus of B.Sc.III, held at Y.C. Institute of Science, Satara, 28th August 2015.
- 14. Attended and actively participated in the workshop on Revised syllabus of B.Sc.II, held at S.M Dr. Bapuji Salunkhe Mahavidyalaya, Miraj. 11th August 2014.
- 15. One Day Workshop on "Organic Electronic Devices", 24th Sept, 2013.
- 16. Two days workshop on Research Writing Ethics, Plagiarism and Publishability, 26th-27th July, 2012, Shivaji University, Kolhapur.
- 17. National Workshop on Materials Chemistry (Functional Materials), NWMC-2011, 7th-8th Dec, 2011, BARC, Mumbai.
- 18. Synthesis and characterization of Prussian blue/PPy composite thin films for smart windows, **D. S. Dalavi**, D. S. Patil, R. S. Patil, P. R. Jadhav, A. C. Sonawane, P. S. Patil, 9-11th July 2009 Int. workshop on Nanotechnology and Advanced Functional Materials, NCL, Pune.

Conferences:

- 1. Bi-functional Electrochromic Supercapacitor Based on Hydrothermally Grown 3D Nb_2O_5 Nanospheres, Dhanaji S. Dalavi, Rutuja U. Amate, Pritam J. Morankar, Radhika S. Desai, Ganesh T.Chavan, Chan-Wook Jeon. International conference on "Recent Trends in Materials Science-Synthesis, Characterization and Applications" Tuljaram Chaturchand Arts, Science and Commerce, Baramati, 3^{rd} 4^{th} January, 2023
- 2. Attended and actively participated in the one-day online national conference on "Emerging Trends in Physical Sciences NCETPS-2020" dated 22nd July 2020" held at Arts, Science and Commerce College Ramanandnagar (Burli).
- 3. Attended and actively participated in the online international conference on "Advanced Materials" held at P.C. Jabin Science College, Hubballi, on 20th July 2020.
- 4. Energy Efficient Electrochromic Smart Windows Based on

- Highly stable CeO₂-V₂O₅ Optically Passive Counter Electrode, Dhanaji S. Dalavi, Pooja G. Pawar, Radhika S. Desai, Pramod S. Patil, International Conference on Multifunctional and Hybrid Materials for Energy and Environment (MHMEE-2020) at Yashwantrao Chavan Institute of Satara during 29-31 January, 2020.
- 5. Energy efficient smart windows based on nanostructured WO₃ and NiO thin film, Dr. Dhanaji S. Dalavi, Kajal R. Mastud, Pooja G. Pawar, 31st Indian Materials Conclave and 2nd Annual General meeting at Central Glass and Ceramic Research Institute, Kolkata, during 11th Feb, 2020 to 14th Februray, 2020.
- 6. Complimentary Electrochromic Devices Based on Nanostructured WO₃ and NiO Thin Film, Dhanaji S. Dalavi, Suryashree V. Desavale, Amol V. Jadhav, Pramod S. Patil, International conference on Chemistry, Environment and Energy, Yashwantrao Chavan Institute of Science, Satara on 16th-18th February, 2019.
- 7. Spray deposited highly stable CeO₂-SnO₂ optically passive counter electrodes for smart windows application, Dhanaji S. Dalavi, Shivaji B. Sadale, Pramod S. Patil, International Conference on Crystal Ball Vision on Science and Engineering for societal Upliftment, CSIR-National Institute of Oceanography, Goa 6-7th August, 2017.
- 8. Attended and actively participated in National conference and Understanding, Revised assessment and accreditation methodology of NAAC, held at Mahavir Mahavidyalaya, Kolhapur on 13th Dec. 2017
- 9. Electrochromic Performance of Nanostructured Prussian Blue Thin Film, Dhanaji S. Dalavi, Pramod S. Patil, One Day National Conference On "Recent Trends in Chemical Science and Its Interdisciplinary Applications, Yashwantrao Patil Science College, Solankur on 6th Jan, 2018.
- 10. Supercapacitive Performance of Nanoporous Nickel Oxide, Dhanaji S. Dalavi, Pravin R. Jadhav, Namdev S. Harale, Shivaji B. Sadale, Pramod S. Patil, National Conference on Chemistry of Chalcogenides, 12-13rd Jan, 2017, Defence Institute of Technology, Girinaragar, Pune.
- 11. Electrochromic Properties of sol-gel deposited nanostructured WO₃ thin film, Dhanaji S. Dalavi, Pramod S. Patil, National conference on recent trends in physical, chemical and nanosciences, 23rd January, 2017, Lal Bahadur Shastri College of Arts, Science and Commerce, Satara.

- 12. Hydrothermally Grown Tungsten Oxide Microbricks and their Gas Sensing Performance, **Dhanaji S. Dalavi**, Namdev S. Harale, Vidula V. Shinde, Vikas B. Patil, Raghunath S. Patil, J.H. Kim, Pramod S. Patil, International Conference on Advanced and Applied Material Science, 15-16 Jan 2014, Gokhale College, Kolhapur.
- 13. Enhanced Optical Modulation of Electrodeposited Nanostructured WO₃ Thin Film, **D. S. Dalavi**, A.J. More, N. L. Tarwal, R. S. Patil, R. S. Devan, Y. R. Ma, P. S. Patil, 1st International Conference on Physics of Materials and Materials Based Device Fabrication (ICPM-MDF-17-19 Jan 2012).
- 14. Chemical Synthesis of Nanoporous Electrochromic NiO, P. M. Kadam, D. S. Dalavi, S. S. Kalagi, N. L. Tarwal, P. S. Patil, IUMRS-ICA-2011, 12th International Conference in Asia Taipei, Taiwan, 19-22nd Sept 2011.
- 15. Chemical synthesis of NiO microspheres with flake like nanostructures and their application in electrochromic smart windows, D. S. Dalavi, S. S. Pol, N. L. Tarwal, P. S. Patil, 15-16th Dec, 2010, National Conference on Recent Trends in Harnessing of Non-Conventional Energy Resources, Dept. Of Chemistry Vivekeanand College, Kolhapur.
- 16. Thickness dependent electrochromic behaviour behavior of NiO thin films, D. S. Dalavi, S. S. Mali, P. S. Patil, 21st-23rd Oct, 2009, Commercialization of Renewable Energy Technology (CRET-2009) Dr. D. Y. Patil University, Kolhapur.
- 17. Organic additives aided synthesis of WO₃ thin films for smart window application, D. S. Dalavi, S. S. Kalagi, S. S. Mali, P. S. Patil, (ICNAMA) 9-11 Dec 2008, Kolhapur.

Symposium:

- 1. Attended and Actively participated in National symposium on examination reforms in higher education, Shivaji University, Kolhapur. 16th-17th February, 2017.
- 2. Dye Sensitized Properties of Hydrothermally Grown Nanocoral TiO2: A comparative studies of dye.
- 3. S. S. Mali, D. S. Dalavi, C.A. Betty, P. N. Bhosale, P. S. Patil, 56th DAE-SSPS symposium, SRM University, Chennai, 19-23rd Dec, 2011
- Electrochromic properties of electrodeposited Tungsten Oxide (WO₃) thin film, D. S. Dalavi, S. S. Kalagi, S. S. Mali, A. J. More, R. S. Patil, P. S. Patil, 56th DAE-SSPS symposium, SRM University, Chennai, 19-23rd Dec, 2011.
- Synthesis of PMA thin films for supercapacitor application, D.
 Dalavi, J. S. Shaikh, V. V. Shinde, P. S. Patil, 9th-11th Feb.

2010, 21st AGM of MRSI: Advanced Ceramic Materials: monoliths to composites, Sardar Patel University, Vallabh Vidyanagar, Gujarat. 6. Surfactant mediated growth of NiO thin films and its electrochromic performance, D. S. Dalavi, D. S. Patil, R. C. Pawar, P. S. Patil, 9th-11th Feb, 2010, 21st AGM of MRSI: Advanced Ceramic Materials: monoliths to composites, Sardar Patel University, Vallabh Vidyanagar, Gujarat. **Publications** 18 1. NO₂ gas sensing properties of chemically grown Al doped ZnO nanorods, V. L. Patil, D. S. Dalavi, S. B. Dhavale, N. L. Tarwal, S. A. Vanalakar, A. S. Kalekar, J. H. Kim, P. S. Patil. Sensors and Actuators A: Physical, 340, 2022, 113546. 2. Indium doped ZnO nanorods for chemiresistive NO₂ gas sensors, V. L. Patil, D. S. Dalavi, S. B. Dhavale, N. L. Tarwal, S. A. Vanalakar, A. S. Kalekar, J. H. Kim, P. S. Patil, New Journal of Chemistry, 46, 2022, 7588-7597. 3. Nanostructured Materials for Electrochromic Energy Storage Systems, Dhanaji S. Dalavi, Radhika S. Desai, Pramod S. Patil, Journal of Materials Chemistry A, 10, 2022, 1179-1226. 4. Energy efficient electrochromic smart windows based on highly stable CeO₂-V₂O₅ optically passive counter electrode, Dhanaji S. Dalavi, Appasaheb K. Bhosale, Radhika S. Desai, Pramod S. Patil, Materials Today: Proceedings ISSN: 2214-7853, Vol.: 43 (4), 2020, 2702-2706, 5. Hydrothermal synthesis of nanoporous lead selenide thin films: photoelectrochemical and resistive switching applications, Tejasvinee S. Bhat, Archana S. Kalekar, Dhanaji S. Dalavi, Chetan C. Revadekar, Atul C. Khot, Tukaram D. Dongale, Pramod S. Patil, Springer: Journal of Materials Science: Materials in Electronics, 30 (19) 2019, 17725-17734. 6. Single step hydrothermally grown nanosheets assembled tungsten oxide thin films for sensitive and selective NO2 gas detection, N. S. Harale, D. S. Dalavi, N. L. Tarwal, Vanalakar, V. K. Rao, C. K. Hong, J. H. Kim, P. S. Patil, Journal of Materials Science, 53(8), 2018, 6094-6105. 7. Synthesis and Characterization Potentiostatically of Electrodeposited Tungsten Oxide Thin Films for Smart Window Application, A. J. More, R. S. Patil, D. S. Dalavi. M. P. Suryawanshi, V. V. Burungale, J. H. Kim, P. S. Patil, Journal of Electronic Materials, 46 (2), 2017, 974-981. 8. Design and electro synthesis of 3-D nanofibres of MnO2 thin films and their application in high performance supercapacitor, P. R. Jadhav, M. P. Suryavanshi, Dhanaji S Dalavi, Dipali S. Patil,

- Eun Ae Jo, Sanjay S. Kolekar, Appaso A. Wali, Milind M. Karanjkar, Jin H. Kim, Pramod S Patil, Electrochimica Acta, 176 (2015) 523-532.
- 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, P. S. Patil. Materials Letter, 146, (2015) 103-107.
- 10. Electrodeposition of nano-granular tungsten oxide thin films for smart window application, A. J. More, R.S. Patil, D. S. Dalavi, S.S. Mali, C.K. Hong, M.G. Gang, J.H. Kim, P.S. Patil, Materials Letter, 134 (2014) 298–301.
- 11. Surfactant free microwave assisted synthesis of ZnO microspheres: Study of their Antibacterial and Photocatalytic Activity, Vidula V. Shinde, Dhanaji S. Dalavi, Sawanta S. Mali, C. K. Hong, S. W. Shin, Jin H. Kim, Pramod S. Patil, Applied Surface Science. 2014
- 12. Efficient Electrochromic Properties of Nanoparticulate WO₃ Thin Films, Dhanaji S. Dalavi, Rupesh S. Devan, Ranjit A. Patil, Raghunath S. Patil, Yuan-Ron Ma, Shivaji B. Sadale, In-Young Kim, Jin-Hyeok Kim, and Pramod S. Patil, J. Mater. Chem. C, 2013, 1, 3722-3728.
- 13. Electrochromic properties of Dandelion flower like nickel oxide thin films, Dhanaji S. Dalavi, Rupesh S. Devan, Raghunath S. Patil, Yuan-Ron. Ma, Myeong-Gil Kang, Jin-Hyeok Kim, Pramod S. Patil, J. Mater. Chem. A, 2013, 1, 1035
- 14. CdS sensitized ZnO nanorods for solar cell application: Synthesis and Characterization, S. A. Vanalakara, S. S. Mali, D. S. Dalavi, M.P. Suryawanshi, A.V. Moholkar, P. S. Patil Vol-X (1) 2013, ISSN:2231-0975.
- 15. Polyaniline–CuO hybrid nanocomposites: synthesis, structural, morphological, optical and electrical transport studies, D. M. Jundale, S. T. Navale, G. D. Khuspe, D. S. Dalavi, P. S. Patil, V. B. Patil, J Mater Sci: Mater Electron, 24 (9) (2013) 3526-3535.
- 16. Electrochromic performance of sol-gel deposited NiO thin film, Dhanaji S. Dalavi, R. S. Devan, R. S. Patil, Y-R. Ma, Pramod S. Patil. Materials Letter: 90 (2013) 60–63.
- 17. Study of Novel WO₃-PEDOT: PSS bilayered thin film for electrochromic applications, S. S. Kalagi, D. S. Dalavi, S. S. Mali, A. I. Inamdar, R. S. Patil, P. S. Patil. J. Nanoscience and Nanotechnology Letters 4 (2012) 1-9.
- 18. Transmission attenuation and Chromic contrast characterization of R.F. sputtered WO₃ thin films for Electrochromic device applications, S. S. Kalagi, S. S. Mali, D. S.

- Dalavi, A. I. Inamdar, H. Im and P. S. Patil, Electrochimica Acta: Electrochimica Acta 85 (2012) 501–508.
- 19. Novel method for fabrication of room temperature polypyrrole-ZnO nanocomposite NO₂ sensor, M. A. Chougule, D. S. Dalavi, Sawanta Mali, P. S. Patil, A. V. Moholkar, G. L. Agawane, J. H. Kim, Shashwati Sen, V. B. Patil, Measurement 45 (2012) 1989–1996.
- 20. Farming of ZnO nanorod arrays via aqueous chemical method for their photoelectrochemical performance, S. A. Vanalakar, R. C. Pawar, N. L. Tarwal, S. S. Mali, D. S. Dalavi, P. S. Patil, Ceramics International 38 (2012) 6461–6467.
- 21. CSA doped Polyaniline/CdS organic-inorganic nanohybrid: Physical and gas sensing properties, B. T. Raut, M. A. Chougule, S. R. Nalage, D. S. Dalavi, S. S. Mali, P. S. Patil, V. B. Patil Ceramics International 38 (7) (2012) 5501–5506.
- 22. Electro-optical properties of copper phthalocyanines (CuPc) vacuum deposited thin films. S. S. Mali, D. S Dalavi, P. N Bhosale, C. A Betty, A. K Chauhan, P. S. Patil, RSC Adv. 2 (5) (2012) 2100-2104.
- 23. Electrochromic properties of electrodeposited tungsten oxide (WO₃) thin film, Dhanaji S. Dalavi, S. S. Kalagi, S. S. Mali, A. J. More, R. S. Patil, P. S. Patil, AIP Conference Proceedings 1447 (1) (2012) 451.
- 24. Efficient maximization of coloration by modification in morphology of electrodeposited NiO thin films prepared with different surfactants, Dhanaji S. Dalavi, M. J. Suryavanshi, S. S. Mali, D. S. Patil, P. S. Patil, J Solid State Electrochem 16 (2012) 253–263.
- 25. Fabrication of Nanocrystalline TiO₂ Thin Film Ammonia Vapor Sensor, Shailesh Pawar, Manik Chougule, Sanjay Patil, Bharat Raut, Dhanaji S. Dalavi, Pramod Patil, Shashwati Sen, Pradeep Joshi, Vikas Patil, J. Sensor Technology, 1 (2011) 9-16.
- 26. Variation in noble metal morphology and its impact on functioning of hydrogen mitigation catalyst, K. K. Sanap, S. Varma, D. S. Dalavi, P. S. Patil, S. B. Waghmode and S. R. Bharadwaj, International Journal of Hydrogen Energy: 36 (2011) 10455-10467.
- 27. CdS Sensitized TiO₂ nanocorals: Hydrothermal Synthesis, Characterization, Application, S. S. Mali, S. K. Desai, D. S. Dalavi, C. A. Betty, P. N. Bhosale and P.S. Patil. Photochem. Photobiol. Sci. 10 (10) (2011) 1652-1658.
- 28. Effect of Annealing on Microstructural and Optoelectronic Properties of nanocrystalline TiO₂ Thin Films, S. G. Pawar, M. A.

- Chougule, D. S. Dalavi, P. S. Patil and V. B. Patil, J. Sensor Technology, 1 (2011) 9-16.
- 29. An Mn doped polyaniline electrode for electrochemical supercapacitor, D. S. Patil, J. S. Shaikh, D. S. Dalavi, M. M. Karanjkar, R. S. Devan, Y. R. Ma and P. S. Patil. J. Electrochemical Society, 158 (5) (2011)1-5.
- 30. Photoluminescence of zinc oxide nanopowder synthesized by a combustion method, N. L. Tarwal, P. R. Jadhav, S. A. Vanalakar, S. S. Kalagi, R. C. Pawar, J. S. Shaikh, S. S. Mali, D. S. Dalavi, P. S. Shinde, P. S. Patil, Powder Technology 208 (2011) 185-188.
- 31. Low temperature aqueous chemical synthesis of CdS sensitized ZnO nanorods, S. A. Vanalakar, R. C. Pawar, M. P. Suryawanshi, S. S. Mali, D. S. Dalavi, A. V. Moholkar, K. U. Sim, Y. B. Kown, J. H. Kim, P. S. Patil, Materials Letters 64 (2011) 548-551.
- 32. Nanoporous nickel oxide thin films and its improved electrochromic performance: Effect of thickness, Dhanaji S. Dalavi, M. J. Suryavanshi, D. S. Patil, S. S. Mali, A.V. Moholkar, S. S. Kalagi, S. A. Vanalkar, S. R. Kang, J. H. Kim, P. S. Patil, Applied Surface Science 257 (2011) 2647–2656.
- 33. Simple and rapid synthesis of NiO/PPy thin films with improved electrochromic performance, A. C. Sonavane, A. I. Inamdar, D. S. Dalavi, H. P. Deshmukh, P. S. Patil, Electrochimica Acta 55 (2010) 2344-2351.
- 34. Chemical synthesis of highly stable PVA/PANI films for supercapacitor application, D. S. Patil, J. S. Shaikh, D. S. Dalavi, P. S. Patil, Materials Chemistry and Physics 128 (2011) 449–455.
- 35. Limitations of dual and complementary inorganic-organic electrochromic device for smart window application and its colorimetric analysis, S. S. Kalagi, S. S. Mali, D. S. Dalavi, A. I. Inamdar, Hyunsik Im, P. S. Patil, Synthetic Metals, 161 (11) 2011) 1105–1112.
- 36. Polymer assisted deposition of electrochromic tungsten oxide thin films, S. S. Kalagi, D. S. Dalavi, R. C. Pawar, S. S. Mali, N. L. Tarwal, P. S. Patil, Journal of Alloys and Compound 493 (2010) 335-339.

Book:

- **1.** "Nanostructured NiO thin Films for Smart Window Application" Lambert Academic Publishing, Germany, 10 April, 2015, ISBN:978-369-64857-1
- 19 Invited Talk
- 1. Expert Lecture on Scanning Electron Microscopy, at Devchand College, Arjunnagar, on 18th December 2020.
- 2. Expert Lecture on Opportunities in Higher Education at Lal

		Bahadur Shashtri College, Satara, 6 th April 2018. 3. Expert Lecture on Engineering Physics, at Jaywant College of
		Engineering and Management, Tal: Walwa, Dist: Sangli, 21st March 2016.
20	Conference/seminar/ workshop/exhibition organized	 Career Opportunities in Higher Education, organized by dept of Physics, under lead college activity, dated 05/02/2021. One Day International e-Conference on Advanced Functional Nanomaterials and Their Device Applications Jointly Organized by the Department of Physics, and Internal Quality Assurance Cell, on 10th August, 2020 One Day workshop on "Nanotechnology", Jointly organized by the Department of Physics and Electronics, under Lead College Activity, dated 16th January, 2016. One Day workshop on Mobile Communication, jointly organized by Department of Physics and Electronics, under Lead College Activity, dated 22nd February, 2014
21	Projects	 Fabrication of Ternary nanocomposite electrodes based on CO₃O₄-rGO-Conducting Polymer for high performance energy storage application (File No. EEO/2021/000984) Funded by Department of Science and Technology, Science and Engineering Research Board (SERB) under Empowerment and equity opportunities for excellence in science (36,98,332/-). "Synthesis and Characterization of Co₃O₄ thin film by hydrothermal route for supercapacitor application". Shivaji University Minor Research Project under lead college activity (SGM/1825/2021-2022 dated 07/01/2022), (Rs. 10,000/-) Synthesis and Characterization of Nanostructured Tungsten Oxide Thin Film for efficient electrochromic smart windows application. Reference No. SU/C&U.D Section/86/233 dated: 10 May 2018 (1.25 Lakh). "Synthesis of Tungsten Oxide-Conducting Polymer Core Shell Nanostructures for Efficient Electrochromic Smart Windows". Shivaji University Minor Research Project under lead college activity (Letter No. SU/C & U.D Section/86/233) and SGM/1517/2018-2019 dated 27/10/2019 (Rs. 10,000/-). Synthesis characterization of WO₃ thin film by sol-gel route for electrochromic smart window application, SGM/1689/2019-2020 dated 01/11/2019 (10,000/-).
22	Student Supervision	Desai Radhika Santosh Jadhav Manjiri Parasharam Kumbhar Pranoti Bhavanrao
		4.Patil Aruna Ravindra.
23	Other contributions	Actively involved in the improvement of the internal quality

		culture of the college through various committees such as Coordinator, IQAC, Member of College development board, Member of standing committee, Coordinator of certificate course, etc.
24	Consultancy	
25	Co-curricular activities	Actively participated in events organized by NCC, NSS and Sports.

I hereby declare that information provided above is true and correct to the best of my knowledge.

Dr. Dhanaji Suresh Dalavi