

## Curriculum Vitae

DR VANDANA B PATIL

MSC BED PHD (SOLID STATE PHYSICS)

ASSISTANT PROFESSOR



DEPARTMENT OF PHYSICS (FE) DR. D. Y. PATIL INSTITUTE OF ENGINEERING,  
MANAGEMENT & RESEARCH, AKURDI PUNE 411044

**PERMANENT ADDRESS** : AT POST WAKARE, TAL: KARVEER, DISTRICT  
: KOLHAPUR-416204

Maharashtra

MOBILE NO : 9922916083, 9922916383

Email- [patil.vandana40@gmail.com](mailto:patil.vandana40@gmail.com), [sanskroutee2008@gmail.com](mailto:sanskroutee2008@gmail.com)

### **PERSONAL DETAILS:**

DATE OF BIRTH : 07/06/1982  
GENDER : FEMALE  
NATIONALITY : INDIAN  
CASTE, SUBCASTE : HINDU –MARATHA  
BLOOD GROUP : B<sup>+</sup>VE

### **Educational Qualifications:**

DEGREE/COURSE	UNIVERSITY	SUBJECT/SPECIALIZATION	YEAQR OF PASSING	MARKS /CLASS
PH.D	SOLAPUR UNIVERSITY	SOLID STATE PHYSICS	AUGUST -2017	AWARDED
MSC	SHIVAJI UNIVERSITY	SOLID STATE PHYSICS	OCT- 2007	68.96%- 1 <sup>ST</sup> CLASS
BSC	SHIVAJI UNIVERSITY	PHYSICS	APRIL 2005	77.60% 1 <sup>ST</sup> CLASS WITH DIST
BED	SPPU	SCIENCE, MATHS	APRIL-2009	A

- **Doctor of Philosophy : Physics, Nanotechnology Gas Sensor and Supercapacitor Devices**
- **Ph.D Degree awarded on 3<sup>rd</sup> August 2017**
- **School of Physical Sciences Solapur University Solapur**
- **Title “Synthesis and Characterization of Tungsten Trioxide by Chemical method for Gas sensing and Supercapacitor Devices”.**

**Under the Guidance of**

Dr S S Suryavanshi

Professor and Director School of Physical Sciences

Solapur University Solapur, Maharashtra , India.

➤ **Co-Guide:**

➤ **Dr Imtiaz Mulla**

**Emeritus Scientist**

**CSIR New Delhi**

**National Chemical Laboratory**

**Pune, Maharashtra , India..**

➤ **Research Thrust Area:**

**Material Science, Nanomaterial Synthesis, Gas sensor, Supercapacitor Devices, Graphene Synthesis, Battery, Renewable energy sources, Piezoelectric Materials, State Physics, Thin Films, Solar Cells, Transparent conductive oxides, Photoelectrochemistry, Photo-electrocatalysis etc.**

➤ **Other Achievements :**

➤ **Eklavya Scholarship of MSC**

➤ **Best Paper presentation award in National Conference Organized by YC Institute Satara in the Year 2007**

➤ **Best Guide Award from MAVIPA Mumbai in the Year 29<sup>th</sup> April 2018.**

➤ **Best Guide Award from **Connect Next Conference on 17<sup>th</sup> and 18<sup>th</sup> September 2020** La Fondation Dassault Systemes, India .**

➤ **First PhD Women award From shri Kundlik Mahadev Patil samajik Sanstha Wakaregaon Tal Karveer Dist Kolhapur -416204 dated on 26<sup>th</sup> Jan 2018.**

➤ **SPPU LEVEL Avishkar SELECTION UNDER Teacher Category in the year 2014.**

➤ **Best Teacher Award from DYPIEMR.**

➤ **Third grade in Vidyan Ranjan Spardha of MAVIPA 2016.**

Sr. No.	Title of paper	Journal Name	Publisher	Cite score	Citation of paper	Source Normalized Impact per Paper (SNIP):	Impact factor	SCI Imago of Journal Rank (SJ R):	Year	Volume and Page number
1.	Oxalic acid induced hydrothermal synthesis of single crystalline tungsten oxide nanorods	Journal of alloys and Compounds	Elsevier	7.6	36	1.393	4.65	1.006	2014	<a href="#">Volume 590</a> , 25 March 2014, Pages 283–288
2.	Hydrothermally synthesized tungsten trioxide nanorods as NO <sub>2</sub> gas sensors	<a href="#">Ceramics International</a>	Elsevier	2.64	09	1.253	3.830	0.865	2015	41(3):3845 - 3852 · April 2015 with 82 Reads
3	Enhanced NO <sub>2</sub> response of hydrothermally grown Ti doped WO <sub>3</sub> nanostructures	<b>Journal of Materials Science: Materials in Electronics</b>	Elsevier	1.6	05	1.052	2.195	0.836	2017	January 2017, Volume 28, <a href="#">Issue 2</a> , pp 1612–1619 88 downloads
4	Effect of annealing on PbWO <sub>4</sub> nanorods	Material Letters	Elsevier	2.42	02	0.985	2.43	0.807	3	Materials Letters 181, 350–353
5	<a href="#">High performance single crystalline PbWO<sub>4</sub> nanorod field effect transistor</a>	J Mater Sci: Mater Electronics	Springer	1.6	05	0957-4522	2.195	2.195	2015	26, 3685-3689
6	<a href="#">Photoluminescence and photoelectrochemical properties of nanocrystalline ZnO thin films synthesized by spray pyrolysis technique</a>	Applied surface science	8.7	3.13	78	1.236	6.182	0.930	2011	257, 10789–10794

7	<a href="#">Spray deposited superhydrophobic ZnO coatings via seed assisted growth</a>	Surface coating and technology	Elsevier	5.8	23	1.437	3.784	0.872	2011	206, 1336–1341
8	Enhanced supercapacitor performance by palladium doping on wo3 electrode	Journal of Material Chemistry and Physics	Elsevier	2.26		ISSN: 0254-0584	4.9	3.408	2019	Vol 225 192-199
9	<a href="#">Using Motion Simulation in CAD in the Concept Design Phase for Harnessing Energy from Road Traffic</a>	International Journal for Scientific Research & Development[.]	I.J.S.R. D. , INDIA			2321-0613 ISSN Online	4.396		2016	Vol. 4 <i>Issue 10,</i> <i>2016 /</i> <i>ISSN</i> <i>(online):</i> <i>2321-0613</i>
10	Effect of titanium on supercapacitor performance of WO3 electrode on GCE	<a href="#">Ceramics International</a>	Elsevier	2.64	09	3.253	3.830	0.865	2017	submitted
11	Macroporous WO <sub>3</sub> : Tunable morphology as a function of glycine concentration and its excellent acetone sensing performance	<a href="#">Ceramics International</a>	Elsevier	2.64	10	4.253	3.830	0.865	2018	Vol 45 409-414
12	WO <sub>3</sub> Morphology and crystal structure dependent pseudocapacitor performance of hydrated WO <sub>3</sub> nanos	Material Advances	Royal Society of Chemistry	7.6	02	7.9	4.6		2020	Vol005 18-26

**List of Publications: 12** (list attached)

➤ **Participation in Conference /workshops/Seminars**

- ❖ • **Convener of the “INNOVATIONS -2015”** organized by DYPIEMR IN THE MONTH OF AUGUST 2015 **PROGRAMME Secretary of “FACULTY DEVELOPMENT PROGRAMME ORGNIZED BY FIRST YEAR DEPARTMENT OF DYPIEMR 2016.**
- ❖ **Convener of the ‘PHYLLECH’ TECHNICAL EVENT ORGAANIZED BY FIRST YEAR DEPARTMENT OFDYP COE 2010.**
- ❖ **Convener of the ‘ONE DAY SPPU LEVEL WORKSHOP ON EFFECTIVE TEACHING METHODOLOGIE IN ENGINEERING SCIENCES’ ORGAANIZED BY FIRST YEAR DEPARTMENT OFDYP COE 2011.**
- ❖ **Convener of the FIRST YEAR INDUCTION AND WELCOME FUNCTION PROGRAMME OF DYPIEMR FROM 2012 TO TILL DATE.**
- ❖ Presented a poster in National seminar on “Synthesis and structural Properties of ZnO nanomaterials” 2009 organized by Dept. Physics Shivaji University Kolhapur, Maharashtra, India.
- ❖ Presented a paper in International seminar on “Growth and Structural, Optical, Electrical Properties of Spray deposited Zinc Oxide Thin Films” 2007 organized by Dept. Physics Delhi Technological University Delhi South campus, India.(IJW-2007)
- ❖ Presented a paper in International conference on “Effect of Dopant on Growth and Structural, Optical, Electrical Properties of Spray deposited Zinc Oxide Thin Films” (ICAMA)-2007 organized by Dept. Physics Shivaji University Kolhapur MH India.
- ❖ Presented a poster in National Conference (NS-NHP) on “Synthesis and structural Properties of Sn- ZnO nanomaterials” 2007 organized by Dept. of Physics YC Institute Satara, Maharashtra, India.
- ❖ Presented a poster in International workshop on “Synthesis and optical Properties of Sn- ZnO nanomaterials” 9 to 11 July 2009 organized by National Chemical laboatory Pune, Maharashtra, India.
- ❖ Presented a poster in National Conference on “Synthesis and structural Properties of Sn- ZnO nanomaterials” 2007 organized by Dept. of Physics YC Institute Satara, Maharashtra, India.
- ❖ Presented a poster in International seminar on “ZnO dye synthesized solar cell” in

Commercialization of Renewable Energy technology (CRET-2009) organized by D Y PATIL UNIVERSITY Kolhapur MH India.

- ❖ Presented a paper in International seminar on “Growth and Structural, Optical, Electrical Properties of Spray deposited boron doped ZnO thin films” organized by Dept. Physics Shivaji University Kolhapur, Maharashtra, India. (NSAM-2010)
- ❖ Presented a poster in National Conference on “Synthesis and growth lead tungstate nanocrystals ” 2015 organized by Dept. of Physics YC Institute Satara, Maharashtra, India.
- ❖ Presented a poster in State level Conference on “Synthesis and growth ONE DIMENSIONAL ZnO NANORODS” 2010 organized by Dept. of Physics POONA COLLEGE PUNE, Maharashtra, India
- ❖ Presented a poster in International Conference on “Synthesis and growth one dimensional ZnO nanorods for field emission applications” 2010 organized by Dept. of Physics POONA COLLEGE PUNE, Maharashtra, India (6<sup>th</sup> -8<sup>th</sup> March ICLAM-2010)
- ❖ Presented two posters in International workshop on “Synthesis and WO<sub>3</sub> nanocrystals for gas sensing and photo dye degradation” organized by National Chemical Laboratory Pune MH India in the year 2013.
- ❖ Presented a paper in International conference on “Effect of annealing on structural and optical properties of lead tungstate.” organized by Dept. Physics Karmveer Hire arts commerce science college Gargoti, Kolhapur held on 10<sup>th</sup> March 2015 Maharashtra, India. (ETBAS-2015).
- ❖ Presented a paper in International conference on “Supercapacitor performance of WO<sub>3</sub> nanocrystals.” organized by Dept. Physics Mahatma Phule Mahavidyalaya Pune held on 12<sup>th</sup> & 13<sup>th</sup> March 2016 Maharashtra, India. (NCMECS-2016).
- ❖ Presented a paper in International Conference on “Supercapacitor performance of Ti doped WO<sub>3</sub> nanocrystals.” organized by Dept. Physics Savitribai Phule Pune University Pune held on 11<sup>th</sup> & 15<sup>th</sup> July 2017 Maharashtra, India. (AMDP-2017).

❖ **Training Programme attended:**

- National Institute of Technical Teachers Training and Research, Bhopal(MHRD ,Govt of India) actively competed two weeks training in the year 2016.
- Presented a paper on Role of Higher Education in the development of country in 2<sup>nd</sup> national Teachers Congress Pune India organized by MIT-SOG Pune MH –India in the Year 2018.
- **Syllabus revision Workshop**

- SPPU Engg Physics one day syllabus revision workshop on 2<sup>nd</sup> Augst 2012 at PVG COE Pune MH-India.
- SPPU Engg Physics one day syllabus revision workshop on 28<sup>TH</sup> August 2019 PCCOER Pune MH-India.
- First Year Technical Event Coordinator Model, Poster and Quiz from 2012 to 2020 (certificate attached.)
- Faculty Development program me:
- **Two week FDP conducted on Role of mathematical modeling and statistical Analysis in Engineering.**
- One week FDP attended on Vibration Measurement and Analysis from 4<sup>th</sup> June to 9<sup>th</sup> June 2018.
- One day FDP attend on Leadership skills by Dr Sapana Sharma on 31<sup>st</sup> August 2013.
- Work as a jury for college level rayat inspires Avishkar in the year 2017.
- Attended a 7<sup>th</sup> Annual meet of Shivaji University Physics students in the year 2005.
- Attended a short time workshop on sky observation held at Vivekanand College Kolhapur dated on 24/01/2004.
- Attended a three days workshop on system operation and maintenance dated on 5-7<sup>th</sup> Jan 2011 at organized by department of Information Technology D Y Patil College of Engineering.
- \_Attended a two days AICTE approved seminar on Next generation wireless Technology held at 29-30<sup>th</sup> Jan 2010 organized by Smt Kashibai Navale college of Engineering MH India
- **SPPU AVISHKRAR CONTRIBUTION**
- Our project on power generation from speed breaker system selected in state level Avishkar competition organized by SPPU in the year 2014.(mail and certificate attached.)
- Participated in Zonal level Avishkar 2018 poster presented on the topic supercapacitor.
- **Total FDP Attended in COVID -19 Period -10**
- **STTP- 10**
- **NATIONAL Conference -03**
- **International Conference -01**
- ✓ **MHRD IPR Online sessions : 15 attended**
- ✓ **Leadership talks by Dr Abhay Jere: 03**
- ✓ **Moodle workshop /FDP: 03**
  - ❖ **MyGov Contribution: Total mygov Score 17330**
  - ❖ **I received Certificate of Appreciation**
  - ❖ **Submitted project to Samadhan**
  - ❖ **Solved all My Gov Quiz and actively participated in all mygov activities.**

## **DYPECAP Contribution Academic duties handled from Academic Year From 2009 Onwards**

➤ **Major Role:**

- Work for new Engg college AICTE ,DTE LIC SPPU Committee

<b>Sr. No.</b>	<b>Name of Activity (In DYPCOE)</b>
1	Work as a reliever in SPPU theory examination
2	Departmental library coordinator
3	Departmental Stationary coordinator
4	Departmental Website coordinator
5	FE PTM coordinator,FE Stationary coordinator
6	Gate Exam Coordinating team member
7	Work for laboratory development of DYPCOE in the year 2011
8	Work for election duties in Kolhapur in the year 2009,2011,2014
9	All Supervision duties of SPPU theory examination from 2009 to till date
10	Work for Supervision duties of SPPU FPLOnline examination
11	Work for Girls Hostel
12	FE WELCOME Function Coordinating team member
13	FE Unit test Coordinator
14	Work as a Good FE Class Teacher
15	Actively participated in all the departmental As well as college level activities
<b>Transferred to DYPCOE to DYPIEMR in the year 2011</b>	
1	Work for Lab development of Engineering Physics as a lab In charge and subject In charge(AICTE ,DTE,LIC committees ) (Faulty Recruitment, equipment, Dead stock)
2	Also work for Engineering chemistry , Engineering mathematics (Faulty Recruitment, equipment, Dead stock)
3	Work as a UGC Campus level core committee documentation Coordinator
4	Work as senior supervisor in SPPU theory examination May 2014(Morning and Evening session)
5	Work for Supervision duties of SPPU Engineering Physics Online examination
6	FE term work coordinator From 2013 to till date
7	FE Defaulter coordinator for the academic year 2014-2015
8	FE time table coordinator From 2012 to 2014
9	Overall time table coordinator of DYPIEMR from 2012 to till date
10	FE Guide line Booklet coordinator from 2012 to till date
11	FE Unit test coordinator 2015
12	Innovation 2015 organizing committee member
13	organizing committee member of One day work shop on engineering sciences in the year 2011
14	FE technical fest Project Coordinator



<b>15</b>	supervisor SPPUOP April2015 Examination
<b>16</b>	FE Defaulter Coordinator
<b>17</b>	FE Term Work Coordinator
<b>18</b>	FE Term Work Coordinator
<b>19</b>	Lecture Monitoring Coordinator for SE
<b>20</b>	departmental Budget Coordinator, Coordinator
<b>21</b>	Work as Reliever FE Online Phase I and II Engg. Graphics I
<b>22</b>	Coordinator of Prof Kedar Takalkar Seminar for career opportunity
<b>23</b>	Work for Shiksha.com
<b>24</b>	Teacher Guardian
<b>25</b>	FE welcome function committee member
<b>26</b>	FE Parent Teacher Meet committee member
<b>27</b>	Balnachiket Visit committee member
<b>28</b>	Work for Election duty.
<b>29</b>	FE Result Analysis committee Member
<b>30</b>	UOP theory exam supervisor
<b>31</b>	Work for NBA documentation.
<b>32</b>	Engineering Physics Subject and Lab In charge
<b>33</b>	Lab development: Procement in Lab Manual
<b>34</b>	Work for Girl Hostel Mess Visiting member
<b>35</b>	Discipline Coordinator for Cultural Event 2014,2015-16
<b>36</b>	Work as a Incharge HOD For FE
<b>37</b>	Work as a Academic Coordinattor
<b>38</b>	FE Submission Coordinator
<b>39</b>	Work as a Organizing committee member for one day Innovision of SPPU July 2015
<b>40</b>	Work for Roaster
<b>41</b>	Effectively work as a good teacher class teacher Mentor
<b>42</b>	Work as a Unit test Prelim Coordinator 15-16 semester I

- Work for Lab Development of Engineering Physics
- Procurement of Engg Physics equipments
- Dead stock maintance
- Preaparation of Lab manual
- Admission Work
- Coordinator of Seminar of Prof Kedar Takalkar 2013 to2018
- Admission Pamphlet distribution 5<sup>th</sup> August 2012 – 2018
- Work for Setu and admission enquiry cell.

## ❖ INNOVATION AND INCUBATION HEAD 2019- TO TILL DATE

- WORK AS I/C HOD FE
- FE NBA 8.1 Coordinator
- NAA 3.3 Coordinator
- Teacher Guardian FE division
- Recruitment committee member
- Discipline committee member
- Mission Admission committee member
- Subject In charge Lab Incharge of Engg Physics
- FE Welcome Function coordinator
- FE Website coordinator
- FE Academic Monitoring Coordinator.




### Teaching Experience to UG

Sr. No.	Post	Tenure	Duties
1.	Assistant Professor (DYPCOE)	01/07/2009 to 31/05/2012	Teaching & Research
2	Assistant Professor (DYPIEMR)	01/06/2012 to till date	Teaching & Research
	<b>Subjects Taught and is being teaching:</b> APPLIED PHYSICS AND ENGINEERING PHYSICS		

### 5. Research Guidance:

Work supervised to S.E, T.E & B.E. Project students for various competitions like, sppu-Avishkar, Aakruti, Kpit Sparkle, Smart India Hackathon, Pimpri dypcoe Gion all internal and external technical event from 2009 to till date

Sr. No.	Name of Student	Achievement
1	Mr. Saad Memon	Selected at St. Andrews Scotland University for higher studies with full funding
		Certificate of Appreciation from Mindspark'15 organized by College of Engineering, Pune
		Selected as Twenty19 Campus Ambassador for DYPIEMR
2	Mr. Aakash Patil	Received 'Summer Under-graduate Research Fellowship' from California Institute of Technology,

		<p>USA</p> <p>Selected in MS Program in ‘Turbulence’ organized jointly by Ecole Centrale de Lille, Ecole Nationale Supérieure d'Ingénieurs de Poitiers and Ecole Nationale Supérieure de Mécanique et d'Aérotechnique de Poitiers</p>
3	<p>Mr. Ayush Agrawal</p> <p>(Patent Filed)</p>	<p>Received a cash Prize of Rs. 2.5 Lakhs from KPIT for the Project “Electricity Generating Device from the Waste Heat of Gas Stove”</p> 
		<p>RECEIVED 60,000Rs cash prize in AAKRUTI Design</p>  <p>context 20</p>
		<p>RECEIVED 12,000Rs cash prize in <b>विज्ञान संशोधन पुरस्कार 2016</b> from <b>MAVIPA MUMBAI FUNDED BY CSIR NEW DELHI</b></p> 
4	Mr Akhildev Pillai	<p>Selected in grand finale of AAKRUTI 2015 and got the best participating college prize with trophy, got gold</p>

		medal best paper presentation in GION technical event 2016 in Pimpri DYPCOE
5	Ms Tejshree	 <p>Presented in State level SPPU Avishkar on idead of Miligram</p>
6	Mr Bhargav Rohit	 <p>Presented idea on Extract water from Thin Air in grand finale of KPIT BETTER WORLD compitition 2017-18.</p>

#### 4. Students guided for Higher studies:

Sr .No	Name of Student	Course and University Name	Academic Year
1	Ms Akanshya Tiwari	Research fellow at IUCCA	2016-2018
2	Mr Akhildev Pillai	Master of Science in Renewable energy management at Cologne University of Applied Sciences Koln Germany	2020-2021
3	Mr Swapnil Hirele	Master of Science in Networked production engineering at RWTH Aachen University Germany	2019-2020

#### 5. Journal Publications: 10 (list attached)

Total citations: 196 (Google Scholar)

h-index: 8 (Google Scholar)

#### 5. Conference Attended:

National: 10

International: 12

#### 8. Membership:

- LIFE TIME Member of ISTE
- Life member: Marathi Vidnyan Parishad PUNE region

### III] COORDINATOR of COLLEGE committees:

Faculty selection committee member, since 2014

- Local Inquiry Committee (affiliation), since 2011
- Admission committee, since 2012
- DYPIEMR Roaster coordinator
- Overall Time table coordinator
- Academic Research Coordinator
- DYPIEMR Lecture Monitoring Coordinator 15-16
- Academic Coordinator in the Academic Year 16-17

#### 11. Patents Filed (Indian)

Sr. No	Title of Patent	Patent number	Date
1	ELECTRICITY GENERATING DEVICE FROM WASTE HEAT OF GAS STOVE AND CHULAHAS WHILE COOKING	201821005138	12-02-2018

2	ETRACT WATER FROM THIN AIR	Inprocess	Inprocess
03	Copyright (02)	In process	

## **12. NPTEL Certifications :02**

### **Declaration:**

I h e r e b y declare that particulars in the resume are correct to the best of my knowledge.  
Thank you for pursuing my personnel information.

Yours faithfully

Dr. V. B. PATIL.