



Dr Vandana B Patil

Curriculum Vitae

drvbpatil2022@gmail.com
Cell No:9922916083/95148356804

Education

2017 - **Solapur University Solapur**

PhD student, Physics Department. SGPA – 4.5/5.

2005 - 07 **Shivaji University Kolhapur**

MSc (with First Class) in Physics 68.96%.

2002 - 05 **Shivaji University Kolhapur**

B.Sc (First Class with Distinction) in Physics 77.60%.

2008-2009 (with First Class)Savitribai Phule Pune University

Academic Honors

2005 - 07 Eklawya Scholarship of MSC

2006-2007 Best Paper presentation award in National Conference Organized by YC Institute Satara.

2014-2015- SPPU level Avishkar winner under PhD Category.

Nominated for Best Teacher award from DYPIEMR AKURDI PUNE 44

2018-19 Best -Guide Award from MAVIPA Mumbai in the Year 29thApril2018.

Sep- 2020 Best Guide Award from Connect Next Conference from La
Fondation Dassault Systems, India.

2018-2019-First PhD Women award Fromshri Kundlik Mahadev Patil samajik

Sanstha Wakaregaon Tal Karveer Dist Kolhapur -416204.

2016-Third grade inVidyan Ranjan Spardha of MAVIPA2016

Sr. No.	Title of paper	Journal Name	Publisher	Citation score	Citation per paper (SNIP)	Source Normalized Impact per Paper (SNIP)	Impact factor	SCI Im	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	Volume 590, 25 March 2014, Pages 283–288
2.	Hydrothermally synthesized tungsten trioxide nanorods as NO ₂ gas sensors	Ceramics International	Elsevier	2.64	09	1.253	3.830	0.865	2015	41(3):3845–3852 April 2015 with 82 Reads
3	Enhanced NO ₂ response of hydrothermally grown Ti-doped WO ₃ nanostructures	Journal of Materials Science: Materials Electronics	Elsevier	1.6	05	1.052	2.195	0.836	2017	January 2017, Volume 28, Issue 2, pp 1612–1619 88 downloads
4	Effect of annealing on PbWO ₄ nanorods	Material Letters	Elsevier	2.42	02	0.985	2.43	0.807	3	Materials Letters 181, 350–353
5	High performance single crystalline PbWO ₄ nanorod field effect transistor	J Mater Sci: Mater Electronics	Springer	1.6	05	0957-4522	2.195	2.195	2015	26, 3685–3689

6	Photoluminescence and photoelectrochemical properties of nanocrystalline ZnO thin films synthesized by spray pyrolysis technique	Applied surface science	8.7	3.13	78	1.236	6.182	0.930	2011	257, 10789–10794
7	Spray deposited superhydrophobic ZnO coatings via seed assisted growth	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 WO ₃ electrode	Journal of Material Chemistry and Physics	Elsevier	2.26		ISSN: 0254-0584	4.9	3.408	2017	Vol 225 192-199
9	Using Motion Simulation in CAD in the Concept Design Phase for Harnessing Energy from Road Traffic	International Journal for Scientific Research & Development	I.J.S. R.D., INDIA			2321-0613 ISSN Online	4.396		2016	Vol.4 Issue 10, 2016 ISSN (online): 2321-0613
10	Effect of titanium on supercapacitor performance of WO ₃ electrode on GCE	Ceramics International	Elsevier	2.64	09	3.253	3.830	0.865	2017	submitted
11	Macroporous WO ₃ : Tunable morphology as a function of glycine concentration and its excellent acetone sensing performance	Ceramics International	Elsevier	2.64	10	4.253	3.830	0.865	2018	Vol 45 409-414
12	WO ₃ Morphology and crystal structure dependent pseudocapacitor performance of hydrated WO ₃ nanostructures	Material Advances	Royal Society of Chemistry	7.6	02	7.9	4.6		2020	Vol 00518-26
13	Spray Deposition of the nanostructured ZnO thin films for Non Volatile resistive switching memory Applications	Applied Physics A		2.98		4.6	3.8		2022	129 issue 7

**** Grant Details****

Sr No	Name of Funding scheme	Amount in Rs	Funding agency
1	Impact Lecture scheme phase I	12000/-	MOE IC Govt of India
2	Impact Lecture scheme phase II	12000/-	MOE IC Govt of India
3	Kapila 2022	5600/-	MOE IC Govt of India
4	SPPU Avishkar 2017	10,000/-	BCUD SPPU

*****Patent /Copy Right Details*****

Sr No	title OF PATENT IDEAAND INVENTION	PATENT ID NO	STATUS WITH DATE
01	<p>SMART PEN TO DETECT HUMAN MENTAL FOCUS AND CONCENTRATION WITH PRESSURE SENSORS ON THE GRIP</p> <p>USING MACHINE LEARNING</p> <p>FIELD OF INVENTION</p> <p>The present invention relates to the field of sensor based mental concentration prediction.</p> <p>The present invention relates to the field of sensor and machine learning based smart pen to detect concentration of the user.</p>	GO6F310354 AND 202022100433	International German Granted for 20 years 31//1/2022
02	Intelligent Management System For Electricity Power Settlement Of Electric Energy Power Station Using Blockchain & Machine Learning	2022/11105	International , South African
03	A system to Harvest Electrical Energy	202221007222	International
04	A Portable Solar Lamp	202221007372	International Published
05	A Smart Trolley	202221007373	International Published
06	Waste Heat Of Gas Stoveand Chulahas Electricitygeneratingdevicefrom Whilecooking	201821005138	International Published
07	An Artificial intelligence based biomedical sensing system for high throughput biomedical testing : physics	202141049862	International Published
08	Portable hitch mounted cargo carrer	364402-001	International Published

****Copy Right Details****

Sr No	Title of Idea	Diary no	Status
1	A scientific image processing methodology for a particular focus on single particle reconstruction from transmission electron microscopy (TEM) images is filled successfully.	3041/2022-CO/L	Published
2	Web Intur	23931/2021-CO/L	Published

Book Publications/Pre-prints

1. 2022-Innovation , Business to Society by Redshine Publisher
2. 2022-23 Engineering Physics Techknowaldge publiction

Book Chapter Publications/Pre-prints

**1.Feb:2023 - Redefining Virtual Teaching Learning Pedagogy –Chapter Name and No :16:
Performance and Security Issues Management During Online Classes**

DOI: [10.1002/9781119867647.ch16](https://doi.org/10.1002/9781119867647.ch16)

Publisher: Wiley Publisher

2. Feb 2023- Chapter 3and Name: Blockchain, IoT and AI for Supply Chain Management, Complete Scenario for Supply Chain Management using IoT and 5G

DOI :

Publisher : CRC Press ,Talylor and Franchies

Innovation and Research Experience

➤ 2012to till date - **ParticipationinConference /workshops/Seminars**

- ❖ •Convenerofthe“**INNOVATIONS-2015**” organizedby
DYPIEMRINTHEMONTHOF
AUGUST2015PROGRAMMESecretary of
“**FACULTYDEVELOPM
ENTPROGRAMMEORGNIZEDBYFIRSTYEAR
DEPARTMENTOFDYPIEMR2016.**
- ❖ **Convener** of t h e‘**PHYLLECH**’TECHNICAL EVENT ORGAANIZED BY
FIRSTYEARDEPARTMENTOFDYPcoe2010.
- ❖ **Convener**ofthe‘**ONEDAYSPPULEVELWORKSHOPONEFFECTIVETEACHING
METHODOLOGIE IN ENGINEERING SCIENCES**’ ORGAANIZED
BY**FIRSTYEARDEPARTMENTOFDYPcoe2011.**

- ❖ **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 Laboratory 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 DY 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

- ❖ Presented two posters in International workshop on “Synthesis and WO₃ nanocrystals for gas sensing and photo dye degradation” organized by National Chemical Laboratory Pune, 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 10th March 2015 Maharashtra, India. (ETBAS-2015).
- ❖ Presented a paper in International conference on “Supercapacitor performance of WO₃ nanocrystals.” organized by Dept. Physics Mahatma Phule Mahavidyalaya Pune held on 12th & 13th March 2016 Maharashtra, India. (NCMECS-2016).
- ❖ Presented a paper in International Conference on “Supercapacitor performance of Ti-doped WO₃ nanocrystals.” organized by Dept. Physics Savitribai Phule Pune University Pune held on 11th & 15th 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 week training in the year 2016.
- Presented a paper on Role of Higher Education in the development of country in 2nd national Teachers Congress Pune, India organized by MIT-SOG Pune, India in the year 2018.
- Syllabus revision Workshop
- SPPU Engg Physics one day syllabus revision workshop on 2nd Aug 2012 at PVG COE Pune, India.
- SPPU Engg Physics one day syllabus revision workshop on 28th August 2019 PCCOER Pune, India.
- First Year Technical Event Coordinator Model, Poster and Quiz from 2012 to 2020 (certificate attached.)
- Faculty Development programme:
- Two week FDP conducted on Role of mathematical modeling and statistical Analysis in Engineering.
- One week FDP attended on Vibration Measurement and Analysis from 4th June to 9th June 2018.
- One day FDP attended on Leadership skills by Dr Sapana Sharma on 31st August 2013.
- Worked as a jury for college level rayatinspires Avishkar in the year 2017.
- Attended a 7th 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-

PatilCollegeofEngineering.

- Attended a two days AICTE approved seminar on Next generation wireless Technology held at 29-30thJan 2010 organized by Smt Kashibai Navale college of Engineering MH India
- **SPPU AVISHKRAR CONTRIBUTION**
- Our project on power generation from speed breakers 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 super capacitor.
- 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
 - ✓ AICTE ATAL FDP: 10
 - ❖ **MyGov Contribution: Total mygov Score 17330**
 - ❖ I received Certificate of Appreciation
 - ❖ **Submitted project to Samadhan**
 - ❖ Solved all MyGov 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, DTELIC SPPU Committee

Sr.No	Name of Activity (In DYPCOE)
1	Work as a reliever in SPPU theory examination
2	Departmental library coordinator
3	Departmental Stationary coordinator
4	Departmental Website coordinator
5	FEPTM 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 FPL Online examination
11	Work for Girls Hostel
12	FE WELCOM E 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 collegelevel activities
Transferred to DYPCOE to DYPIEMR in the year 2011	
1	Work for Lab development of Engineering Physics as a lab In charge and subject In charge (AICTE, DTE, LIC committees) (Faculty Recruitment, equipment, Dead stock)
2	Also work for Engineering chemistry, Engineering mathematics (Faculty 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 timetable coordinator From 2012 to 2014
9	Overall timetable coordinator of DYPIEMR from 2012 to till date
10	FE Guideline 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

15	supervisorSPPUOPApril2015Examination
16	FEDefaulter Coordinator
17	FETermWorkCoordinator
18	FETermWorkCoordinator
19	LectureMonitoringCoordinatorforSE
20	departmentalBudgetCoordinator,Coordinator
21	Workas Reliever FEOnlinePhaseIandII Engg.Graphics I
22	Coordinator ofProf Kedar Takalkar Seminar for careeropportunity
23	WorkforShiksha.com
24	Teacher Guardian
25	FEwelcomefunctioncommitteemember
26	FEParentTeacherMeet committeemember
27	BalnachiketVisitcommitteemember
28	WorkforElectionduty.
29	FEResultAnalysiscommittee Member
30	UOPtheoryexam supervisor
31	WorkforNBAdocumentation.
32	EngineeringPhysics Subject andLabIncharge
33	Labdevelopment:ProcementinLabManual
34	WorkforGirlHostelMessVisitingmember
35	DisciplineCoordinatorforCulturalEvent2014,2015-16
36	Workas a InchargeHODForFE
37	WorkasaAcademicCoordinattor
38	FESubmissionCoordinator
39	Workas aOrganizingcommitteememberforonedayInnovision of SPPUJuly 2015
40	Workfor Roaster
41	Effectivelyworkasagoodteacherclassteacher Mentor
42	Workas aUnittest PrelimCoordinator 15-16semesterI

- WorkforLabDevelopmentofEngineeringPhysics
- Procurementof EnggPhysicsequipments
- Deadstockmaintance
- PreaparationofLab manual
- AdmissionWork
- CoordinatorofSeminarofProfKedarTakalkar2013to2018
- AdmissionPamphletdistribution5thAugust2012–2018
- WorkforSetuandadmissionenquiry cell.

❖ INNOVATIONAND INCUBATIONHEAD 2019-TOTILLDATE

- WORKASI/CHODFE
- FENBA8.1Coordinator
- NAA3.3Coordinator
- TeacherGuardianFEdivision
- Recruitmentcommitteemember
- Disciplinecommitteemember
- MissionAdmissioncommitteemember
- SubjectInchargeLabInchargeofEnggPhysics
- FEWelcome Functioncoordinator
- FEWebsite coordinator
- FEAcademicMonitoringCoordinator.




TeachingExperiencetoUG

Sr. No.	Post	Tenure	Duties
1.	AssistantProfessor(DYPCOE)	01/07/2009to31/05/2012	Teaching& Research
2	AssistantProfessor(DYPIEMR)	01/06/2012totilldate	Teaching &Research
SubjectsTaughtandisbeingteaching: APPLIEDPHYSICSANDENGINEERINGPHYSICS			


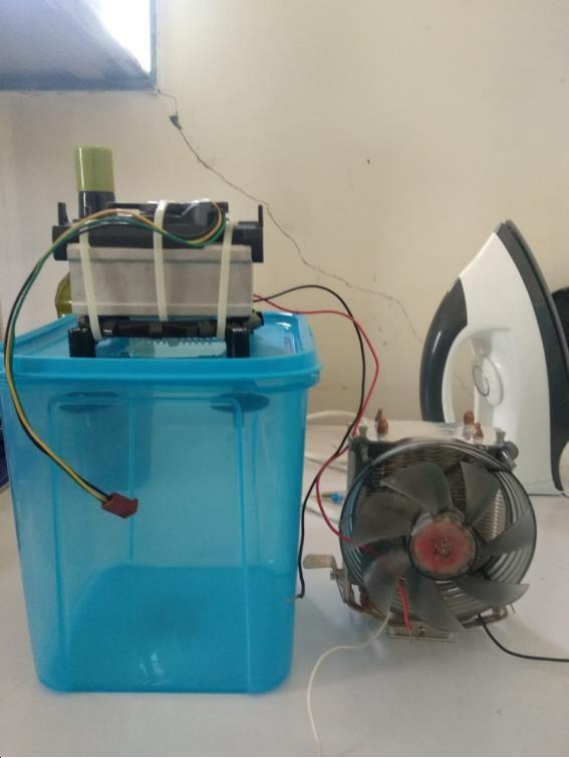
5.Research Guidance:

WorksupervisedtoS.E,T.E&B.E.Projectstudentsforvariouscompetitionslike,sppu-Avishkar

,Aakruti,KpitSparkle,SmartIndiaHackathon,PimpridypcoeGionallinternaland externaltechnicalevent from 2009 to till date

Sr. No.	Name of Student	Achievement
1	Mr. Ayush Agrawal(Pate nt Published)	<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> 
2		<p>RECEIVED 60,000 Rs cash prize in AAKRUTI Design context 2016</p> 
3		<p>RECEIVED 12,000 Rs cash prize in विज्ञान संशोधन पुरस्कार 2016 from MAVIPAMUMBAI FUNDED BY CSIR NEW DELHI</p> 

4	MrAkhildevPillai	Selected in grand finale of AAKRUTI 2015 and got thebest participating college prize with trophy, got goldmedal best paper presentation in GION technical event2016in PimpriDYPCOE
---	------------------	--

5	MsTejshree Shimpi	 <p>Presented in State level SPPU Avishkar on idea of Miligram</p>
6	Mr Bhargav Rohit	 <p>Presented idea on Extract water from Thin Air in grand finale of KPIT BETTER WORLD competition 2017-18.</p>

****Membership:**

- LIFE TIME Member of ISTE
- Life member :Marathi Vidnyan Parishad PUNE region
- MoE Innovation Council
- MyGOV
- Yuva Incubators

References

1. Dr P S Patil

ProVice

Mail id : psp_phy@unishivaji.ac.in Chancellor

SHIVAJI UNIVERSITY

KOLHAPUR

2. Dr NLTarwal

SERB Scientist and Assistant

Professor

Mail id : nlt.phy@unishivaji.ac.in

Department of Physics SHIVAJI

UNIVERSITY KOLHAPUR

MH India