

, **Dr.SangitaPakade (Yawale), Director, Pre indian Administrative Services  
Training Centre,Amravati**

1. Name ofthefaculty: Dr.SangitaShrikrishnaYawale(Pakade)
2. Name of theDepartment: Higher and Technical Education, Govt. of Maharashtra
3. Educationalqualifications: M.Sc.(Physics)-1986, M.Phil.(Physics)-1989,  
Ph.D.-1992., M.Sc. Subject Comm(Physics) 2005, LLB-2019.
4. Presentposition: **Director/Principal**
5. PastService:
  - Director, Pre Indian Administrative Services Training Institute, Nagpur,(2009-2014)
  - Joint Director (Higher Education) Amravati Region, Amravati (2013-14)
  - Director, Govt. Vidarbha Institute of Science and Humanities, Amravati(2014-2017)
  - Principal, Sydenham College of Commerce and Economics, Mumbai (2017-2020)
6. Addressforcorrespondence: 58, Vijay Colony, VMV Road, Amravati-444604.
7. E-mail andcontactnumber: [sypakade@gmail.com](mailto:sypakade@gmail.com),9422915856
8. Specialization: Solid StatePhysics/Electronics
9. Experience 34 years(Teaching experience23Years)
10. AdministrativeExperience: 11 years
  - a) Construction of Pre IAS Institute and Hostel Building at Nagpur through the funds obtained from DPDC,Nagpur.
  - b) Prepared prospectus of the Pre IASinstitute
  - c) Provided all types of library and basic facilities to the IASstudents.
  - d) Conducted entrance test for admission of thecourse.
  - e) Intake Capacity of IAS batch is increased from 60 to 100students.
  - f) Five to fifteen students cleared UPSC exam and placed in Administrative services such as IAS,IPS, IRS and other alliedservices.
  - g) Funds obtained for Infrastructure development and Instruments- GVISH, Amravati from DPDC
  - h) Provided Internet facility to all depts. and CCTV in the campus ofGVISH.
  - i) Organized various programmes for students andstaff.
11. Worked as Memberon-
  - Various committees of theState,
  - Dean , Commerce Faculty, Homi-Bhabha State Cluster University, Mumbai.(2019-20).
  - Fee structure committee, Govt. of Maharastra , B. Ed.colleges.
  - Chairperson of Faculty Development Centre Sydenham College Mumbai Under PanditMadan Mohan Malviya National Mission On Teachers and Teaching-PMMMNMTT(2018-2020).
  - Member of Management Council, SGB AmravatiUniversity
  - Senate of SantGadge Baba Amravati University, Amravati as Ex- officiomember.
  - Superannuation committee-60 to 62years
  - VC nominee on selection of teacher andPrincipals
  - Nagpur University- BARTIcentre
  - Gondwana University, Gadchiroli- opening of IAS studycenter
  - Member secretary- Local AdvisoryCommittee
  - Ex-Chairman, Local Advisory Committee of Govt. B.Ed. Colleges, Amravati region
12. Coursestaught: B.Sc., M.Sc., M.Phil.,Ph.D.
13. Researchexperience: **34Years**

14. Major research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.:

15. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.

**i) Title of the project** - Depolarization Study of Lead-Borate Glasses Using Thermally Stimulated Discharge.

**Date of sanction** and Letter No. 47-273/2001/WRO Dated: 22 September 2002

**Duration: Two Years**

**Grants received: Rs.35,000/-**

**Grants sanctioned: Rs.40,000/-**

**Funding Agency: UGC, New Delhi.**

**ii) Title of the project** –Development of amorphous materials for optoelectronics devices.

**Date of sanction** and Letter No.47-084/05 Dated: Jan 16,2006 (2005-2007)

**Duration: Two Years**

**Grants received: Rs.93,000/-**

**Grants sanctioned: Rs.93,000/-**

**Funding Agency: UGC, New Delhi.**

16. Number of students awarded Ph.D. degree: Name of the student, topic of research, date of registration, date of declaration of Ph.D.degree.

#### **List of Ph.D. Awards**

Sr. No.	Name of Ph.D Student (Award)	Registration No. and Date of Registration	Notification No. and Date of Award	Topic
1	Shri. S.B. Sawarkar	AU/5-Ph.D./Phy/2/98 Dt.15.01.1997	180/2002 Dt. 03.09.2002	Depolarization study of lead borate glasses using thermally stimulated discharge
2	Shri. C.M. Khairnar	AU/554-Ph.D./Phy/3/2000 Dt.15.01.2000	01/2003 Dt.02.01.2003	Study of transport mechanism in cadmium and lead sulphide doped vanadium phosphate glasses
3	Shri. W.S. Barde	AU/554-Phd/Phy/08/2002 Dt.15.01.2002	51/2008 Dt.30.04.2008	Electrical characterization of polypyrrole synthesized by different strength of oxidizing agent
4	Shri. A.V. Kohale	AU/554-PhD/PHY/003/2004 Dt.15.07.2004	28/2009 Dt. 17.01.2009	Transport properties of conducting polymer polypyridine
5	Shri. G.R. Dhokane	AU/554-PhD/PHY/004/2004 Dt.15.07.2004	42/2007 Dt.03.05.2007	Synthesis and characterization of doped polypyridine
6	Shri. K.B. Raulkar	AU/554-PhD/PHY/05/2006 Dt.15.07.2006	66/2012 Dt. 06.07.2012	Application of conducting polymer polypyrrole and doped stannic oxide for ammonia gas detection
7	Shri. N.V. Shirbhate	AU/554-PhD/PHY/008/2004	49/2012 Dt. 15.02.2012	Semiconducting materials for device application as light

		Dt. 15.07.2004		emitting diode
8	Shri. R.S.Bobade	SGBAU/Ph.D./ Physics/ 09/2009 Dt. 15.07.2009	21/2013 Dt. 31.01.2013	Synthesis, characterization and study of conducting polythiophene composites
9	Shri. P. D. Shirbhate	SGBAU/Ph.D./ Physics/06/2010 Dt.15.01.2010	80/2014Dt. 12.12.2014	Synthesis and investigation of Electrical and structural properties of Conductive polymer composite PEO-Polythiophene
10	Ku. Sarika A. Khapre	SGBAU/Ph.D./ Physics/07/2010 Dt.15.01.2010	55/2014 Dt.15.05.2014	Structure and properties of Processible conductive polyaniline Blends
11	Ku. Pratiksha S. Nichit	SGBAU/Ph.D./ Physics/ 05/2010 Dt. 15.01.2010	40/2015 Dt. 13.02.2015	Electrical, thermal and structural characterization of metal sulphide doped lithium borate glasses
12	Ku. M.S. Bhende	SGBAU/Ph.D./Physi cs/5317/2012 Dt.15.01.2012	151/2017 Dt.05.06.2017	Study of Metal Oxides Nanoparticles Reinforced with conducting Polypyrrole Composites

17. Number of students registered for Ph.D. degree: Name of the student, topic of research, date of registration.

List of Ph.D. Students registered

Sr.No.	Name of Ph.D. Student Registered	Registration No and Date of Registration	Topic
1	Ku. RutujaBobade	SGBAU/Ph.D./PHY/7524/2014 Dt.15.07.2014	Study of Polyaniline films as CO <sub>2</sub> gas sensor

18. Participation in conferences, symposia, seminars and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resourceperson.

#### **PARTICIPATION IN CONFERENCES: GROUP ACADEMIC ACTIVITIES**

1. Indian Science Congress at University of Poona, Pune on Jan7-12,1988.
2. International Conference on Disordered Materials Systems (Structure & Properties) at Devi Ahilya University, Indore on Feb 3-6,1991.
3. Recent Trends In Composites at Dept of Physics, ShriShivaji Science College, Amravati on Feb 28 -Mar 2,2001.
4. Workshop on Modern Differential Geometry at Amravati University, Amravati. On Feb28-Mar 1, 1993.
5. Solid State Physics Symposium at DOE, Govt. Of India, BARC, Trombay, Bombay on Dec 27-31,1997.

6. Solid State Physics Symposium, Bhopal University, Bhopal. On Dec 20-23, 1988.
7. National Symposium on Eco-Environmental Impact and Organism Response at Dept. of Zoology, Govt. Vidarbha Mahavidyalaya, Amravati on Oct 15-17, 1994.
8. National Seminar on Solid State Chemistry and allied areas at Dept. of Chemistry, Institute of Science, Nagpur on Jan 28-30, 1991.
9. National Symposium on Ultrasonic Application to Molecular Interactions at Dept. of Physics, Institute of Science, Nagpur on Sept. 15-17, 1988.
10. First conference of Electronics Teachers Association and Workshop and on up gradation of Curriculum at Brijlal Biyani Science College, Amravati on March 20, 2005.
11. National conference on Luminescence and its applications (NCLA-2006) at Dept. of Physics, Amravati University, Amravati on Feb 7-9, 2006.
12. Workshop on Scope and limitations of B.Sc. III (Physics) Syllabus at Dept. of Physics, Amravati University, Amravati on Jan. 30, 2007.
13. National conference on Recent Initiatives in Green Electronics at Brijlal Biyani Science College, Amravati, Feb 8-9, 2013.

#### **CHAIRING SESSIONS IN CONFERENCES / WORKSHOPS**

- Delivered Talk as chief guest on concluding function of Conference at Bhalerao Science College, Saoner, Dist. Nagpur 2014.
  - Delivered talk in training class of Jr. College teachers at Nagpur organized by Dy. Director of Education, Nagpur Region. (2013)
19. Delivered talks on many programmes such as College Gatherings, conferences, colleges on Competitive examinations at Fulsingh Naik College, Pusad; Vetherniery University, Nagpur; Mahatma Fule and Sitaramji Chaudhari Science College, Warud; Jagdamba Mahavidyalaya, Achalpur; Govt. VISH, Amravati, Shivaji Arts and Science College, Telhara, Brijlal Biyani Science College Amravati, Vidyabharti B.. Ed. College, Amravati etc.
20. Examination / Evaluation reforms initiated:

#### **REFEREE OF PH.D. THESIS**

- Examined Ph.D. Thesis in the Subject Physics of Swami Ramanand Tirth Marathwada University, Nanded and Calcutta University, Kolkata.

- As a VC nominee and Govt. nominee on Placement and Interview Committees of Assistant, Associate, Professor and Principal Appointments.
- Subject Expert on Selection Committees.

**Participation in University working:** Worked as paper setter, examiner, moderator, subject expert, Unfair means committee etc.

## 21. Details of patents: Patent Filed-

Application No. TEMP/E-1/19652/2018-MUM Dated; 18/05/2018

Title: High performance Photovoltaic Cell with Sodium Superoxide Interlayer in Polyaniline-CuO Matrix.

22 . Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS.

## List of publications in Journals:

Sr No.	Name of Author/Co-authors	Title of Publication	Journal Name	Year
1)	S.V.Pakade, S.P.Yawale, C.S. Adgaonkar	Effect of annealing on dc conductivity and activation energy of $\text{Li}_2\text{O}-\text{Al}_2\text{O}_3-\text{B}_2\text{O}_3$ glass	Indian Journal of Physics, A, 65 A(1) 76-78	1992
2)	S.P. Yawale, S.V. Pakade	DC conductivity and hopping mechanism in $\text{Bi}_2\text{O}_3-\text{B}_2\text{O}_3$ glasses	Journal of Materials Science 28 (20), 5451-5455	1993
3)	S.P.Yawale, S.V.Pakade, C.S. Adgaonkar	Ultrasonic Velocity And Absorption Measurement In $x\text{ZnO}-(90-x)\text{B}_2\text{O}_3-10\text{Bi}_2\text{O}_3$ Glasses	Acustica 76 (2), 103-105	1993
4)	S.P.Yawale, S.V.Pakade, C.S. Adgaonkar	dc-conductivity of $\text{V}_2\text{O}_5-\text{ZnO}-\text{P}_2\text{O}_5$ glasses	Indian Journal Of Pure & Applied Physics 32 (3), 270-271	1994
5)	S.V.Pakade, S.P.Yawale, C.S. Adgaonkar	Behaviour of ultrasonic velocities and elastic constants of $x\text{ZnO}-10\text{V}_2\text{O}_5-(90-x)\text{B}_2\text{O}_3$ and $x\text{ZnO}-(50-x)\text{V}_2\text{O}_5-50\text{B}_2\text{O}_3$ glasses	Indian Journal Of Physics And Proceedings Of The Indian Association For The cultivation of Science	1994
6)	S.V.Pakade, S.P.Yawale, C.S. Adgaonkar	Electron drift measurements in $80\text{V}_2\text{O}_5-20\text{P}_2\text{O}_5$ semiconducting glass	Indian Journal of Pure and Applied Physics, 32(3), 275-276.	1994
7)	WJ Gawande, SV Pakade, SP Yawale	Thermal conductivity of $\text{V}_2\text{O}_5-\text{P}_2\text{O}_5$ glasses	Indian Journal of Engineering & Materials sciences 2, 291-296	1995
8)	S.P.Yawale, S.V.Pakade,	A New Type of Behaviour in Physical and Ultrasonic Properties	Acta Acustica United with Acustica 81 (2), 184-186	1995

	C.S. Adgaonkar	of Bi <sub>2</sub> O <sub>3</sub> -B <sub>2</sub> O <sub>3</sub> Glasses		
9)	W.J. Gawande, S.V. Pakade, S.P. Yawale, S.G. Motke, D.K. Burghate	Space Charged Limited Conduction in Amorphous Semiconductor-Polystyrene-Semiconductor (SPS) Sandwich Material	VIDE-PARIS- 51, 544-550	1995
10)	S.G. Motke, D.K. Burghate, W.J. Gawande, S.V. Pakade, S.P. Yawale	Effect of pellet pressing temperature on transport properties of amorphous CuO-Bi <sub>2</sub> O <sub>3</sub> pellets	Indian Journal Of Engineering & Materials Sciences 2 (5), 231-235	1995
11)	W.J. Gawande, S.V. Pakade, S.P. Yawale	Variation Of Magnetic Susceptibility Of ZnFeCr <sub>2</sub> O <sub>4</sub> And ZnMnCr <sub>2</sub> O <sub>4</sub> With Temperature	Indian Journal Of Pure & Applied Physics 33 (7), 362-365	1995
12)	S.V. Pakade, S.P. Yawale, W.J. Gawande	Ultrasonic velocity and elastic constant measurements in some borate glasses	Acoustics letters 18 (11), 212-216	1995
13)	D.K. Burghate, V.S. Deogaonkar, S.V. Pakade, S.P. Yawale	Ac-conductivity of lead-bismuth glasses	Indian Journal Of Pure & Applied Physics 33 (5), 225-230	1995
14)	S.P. Yawale, S.V. Pakade	Solid state variable frequency pulser-receiver system for ultrasonic measurements	Indian Journal Of Pure & Applied Physics 33 (10), 638-642	1995
15)	D.K. Burghate, V.S. Deogaonkar, S.V. Pakade, S.P. Yawale	Optical properties of lead-bismuth-titanate glasses	Indian Journal Of Pure & Applied Physics 33 (11), 683-686	1995
16)	S.P. Yawale, S.V. Pakade, C.S. Adgaonkar	Infrared spectra of some borate glasses	Indian Journal Of Pure & Applied Physics 33 (1), 34-37	1995
17)	S.G. Motke, D.K. Burghate, W.J. Gawande, S.V. Pakade, S.P. Yawale	Hopping Conduction Mechanism in Amorphous CuO-Bi <sub>2</sub> O <sub>3</sub> Pellets	Acta Physica Polonica-Series A General Physics 86 (6), 969-978	1995
18)	S.V. Pakade, S.P. Yawale	Ultrasonic velocity and elastic constants measurement in some borate glasses	Journal of Pure and Applied Ultrasonics 18, 74-79	1996
19)	W.J. Gawande, S.V. Pakade, S.P. Yawale, D.K. Burghate, S.G. Motke	Transport properties of amorphous CuO-Bi <sub>2</sub> O <sub>3</sub> semiconducting pellets	Indian Journal Of Engineering And Materials Sciences 4, 33-37	1997

20)	D.S. Dhote, S.V. Pakade, S.P. Yawale	Transport properties of zinc-bismuth oxide glasses	Indian Journal Of Engineering & Materials Sciences 4 (1), 28-32	1997
21)	S.B. Sawarkar, V.S. Deogaonkar, S.V. Pakade, S.P. Yawale	Depolarisation study of semiconducting glasses using thermally stimulated discharge	Indian Journal Of Pure & Applied Physics 35 (4), 281-289	1997
22)	W.J. Gawande, S.V. Pakade, S.P. Yawale, S.G. Motke, D.K. Burghate	Space charged limited conduction in amorphous semiconductor-polystyrene-semiconductor (SPC) sandwich material	Journal of Polymer Materials 13 (3), 233-238	1997
23)	D.S. Dhote, S.V. Pakade, S.P. Yawale	Transport properties of zinc-bismuth oxide glasses	Ind. J. Mater. Sci. Eng. 4 (1997) 28-32.	1997
24)	S.G. Motke, D.S. Dhote, S.V. Pakade, S.P. Yawale	Effect of past electric field and hopping mechanism in polystyrene thin film	Journal of Polymer Materials 14 (2), 155-158	1999
25)	D.K. Burghate, V.S. Deogaonkar, S.V. Pakade, S.P. Yawale	Optical properties of lead-bismuth glasses	Indian Journal of Physics A and Proceedings of the Indian Association for the Cultivation of Science.	2000
26)	S.S. Yawale, S.P. Yawale, C.S. Adgaonkar	Infrared investigations of some borate glasses	Indian Journal Of Engineering And Materials Sciences 7(3), 150-153	2001
27)	R.H. Amnerkar, C.S. Adgaonkar, S.S. Yawale, S.P. Yawale	Microwave properties of vanadium borate glasses	Bulletin of Materials Science 25 (5), 431-434	2002
28)	S.G. Motke, S.P. Yawale, S.S. Yawale	Infrared spectra of zinc doped lead borate glasses	Bulletin of Materials Science 25 (1), 75-78	2002
29)	G.T. Lamdhade, S.P. Yawale, S.S. Yawale	TiO <sub>2</sub> -MgO mixed oxide humidity sensor	Indian Journal of Physics A 6A(4):399-401	2002
30)	D.S. Dhote, S.P. Yawale, S.S. Yawale	Structural characterization of vanadium-borate semiconducting glasses	Acta Ciencia Indica 28 (4), 185-190	2002
31)	S.B. Sawarkar, V.S. Deogaonkar, S.V. Pakade, S.P. Yawale	Thermally stimulated discharge current in lead borate glasses	Discharges and Electrical Insulation in Vacuum, 2002. 20th International 214-218	2002
32)	D.K. Burghate, V.S. Deogaonkar, S.V. Pakade, S.P. Yawale	AC-conductivity of lead-bismuth-titanate glasses	Indian Journal Of Physics And Proceedings Of The Indian Association For The Cultivation of Science	2002

33)	D.K. Burghate, V.S. Deogaonkar, S.B. Sawarkar, S.P. Yawale, S.V. Pakade	Thermally stimulated discharge current (TSDC) and dielectric constant of semiconducting glasses	Bulletin of Materials Science 26 (2), 267-271	2003
34)	S.S. Yawale, A.A.Kakade, V.R.Bhonde, C.S. Ulhe, D.S. Dhote, SB Sawarkar,.	Thermally stimulated discharge conductivity of PVC thinfilm	Indian Journal Of Engineering And Materials Sciences 9(5), 375-382	2003
35)	C.M. Khairnar, S.P.Yawale, S.V.Pakade	Thermopower of Semiconducting Glasses in the V <sub>2</sub> O <sub>5</sub> -P <sub>2</sub> O <sub>5</sub> and V <sub>2</sub> O <sub>5</sub> -CdS-P <sub>2</sub> O <sub>5</sub> Systems	Glass Physics and Chemistry 31 (5), 611-620	2005
36)	Y.B. Gandole, S.P. Yawale, S.S. Yawale	Simplified instrumentation for ultrasonic measurements	Electronic Journal Technical Acoustics,37	2005
37)	P.T. Deshmukh, D.K. Burghate, V.S. Deogaonkar, S.P. Yawale, S.V. Pakade	Optical properties of lead-bismuth cuprous glasses	Bulletin of Materials Science 26 (6), 639-642	2005
38)	YB Gandole, SP Yawale, SS Yawale	Computer Modeling and Simulation of Piezoelectric Transducers	i-Manager's Journal on Software Engineering 1 (1), 39	2006
39)	CM Khairnar, SP Yawale, SV Pakade	Thermo power of Semiconducting Glasses in the V <sub>2</sub> O <sub>5</sub> -P <sub>2</sub> O <sub>5</sub> and V <sub>2</sub> O <sub>5</sub> -CdS-P <sub>2</sub> O <sub>5</sub> Systems	Glass Physics and Chemistry 31 (5), 611-620	2006
40)	W.S Barde, SV Pakade, SP Yawale	Ionic conductivity in polypyrrole-poly (vinyl acetate) films synthesized by chemical oxidative Polymerization method	Journal of Non-Crystalline Solids 353 (13),	2007
41)	SP Yawale, SS Yawale, GT Lamdhade	Tin oxide and zinc oxide based doped humidity sensors	Sensors and Actuators A: Physical 135 (2),388-393	2007
42)	YB Gandole, SP Yawale, SS Yawale	Simulation of pulser receiver system for ultrasonic measurements	International Journal of Modern Physics B 20 (17), 2395-2414	2007
43)	S.A. Waghule, S.M. Yenorkar, S.S. Yawale, S.P. Yawale	SnO <sub>2</sub> /PPy screen-printed multilayer CO <sub>2</sub> gas sensor	Sensors and Transducers Journal 79 (5), 1180-1185	2007
44)	S.P.Yawale, V.T.Kharche, S.S.Yawale	Relaxation mechanism in silver borate glasses	Glass Physics and Chemistry 34, (4),381-388	2008
45)	Waghuley S.A., S.M.Yenorkar, S.S.Yawale, S.P.Yawale	Application of chemically synthesized polypyrroleconducting polymer-Carbon dioxide as a gas sensor	Sensors and Actuators B: Chemical128,(2),366-373	2008



46)	RS Bobade, SV Pakade, SP Yawale	Electrical investigation of polythiophene-poly (vinyl acetate) composite films via VTF and impedance spectroscopy	Journal of Non-Crystalline Solids, 355, (48-49),2410-2414	2009
47)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Transport properties of CuO-MnO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> glasses	idarbha J. of Science, 4(3-4) ,31-38	2009
48)	RH Limsay, RA Tayade, CB Talwatkar, SP Yawale, SS Yawale, .	Solution Combustion Synthesis Of Mixed Fuel Using CaZrO <sub>3</sub>	International Journal of Modern Physics B. 24, (31), 6107-6113	2010
49)	YB Gandole, SP Yawale, SS Yawale	Ultrasonic Study on Organic Binary Liquid Mixtures By Using Virtual Instrumentation	i-Manager's Journal on Future Engineering and Technology 5 (3),	2010
50)	S.A. Waghuley, R.S.Bobade, A.V.Kohale, G.G. Muley, S.S. Yawale, S.P.Yawale	PTh/PVAc composites-based sensor for CO <sub>2</sub> monitoring	Optoelectronics and Advanced Materials-Rapid Communications 4 (1),97- 101	2010
51)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Optical properties of CuO-B <sub>2</sub> O <sub>3</sub> glasses	idarbha J. Science, 5(1-2),34-38	2010
52)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Electrical and Heat transport Mechanism in CuO-B <sub>2</sub> O <sub>3</sub> glasses,	Vidarbha J. of Science, 6,( 3-4), 5-12	2011
53)	N.V. Shirbhate, S.P. Yawale, S.V. Tambakhe, R.S. Bobade	Structural investigation of conducting polythiophene composites	Journal of Polymer Engineering 31(2):289-292	2011
54)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Hopping conduction Mechanism in Amorphous CuO-Bi <sub>2</sub> O <sub>3</sub> semiconductingpellets.	idarbha J. of Science, 6(1-2) ,20-24.	2011
55)	S.B.Dhannasare, S.S. Yawale, S.B. Unhale, SP Yawale	Application of nanosizepolycrystalline SnO <sub>2</sub> -WO <sub>3</sub> solid materials as CO <sub>2</sub> gassensor	Revista Mexicana de Fisika 58 ,445-450	2012
56)	DP Deshmukh, PD Shirbhate, SS Yawale, SP Yawale	Application of Vogel-Tamman-Fulcher (VTF) model to polythiophene composite thin films	J Polymer Engineering 32 , 103-110	2012
57)	G.R. Dhokane, C.S. Ulhe, S.P. Yawale	Structural study of Ni (NO) <sub>2</sub> doped polypyridine-polyvinyl acetate (PVAc) composite films.	International Journal of Basic and Applied Research,Special issue,54-57	2012
58)	W.J. Gawande, S.S. Yawale,	Optical Properties of CuO-MnO-B <sub>2</sub> O <sub>3</sub> Glasses	International Journal of Basic and Applied Research . 02(2), 9-13.	2012

	S.P. Yawale			
59)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Transport Properties of CuO-B <sub>2</sub> O <sub>3</sub> glasses	idarbha J. of Science, 7, (1-2)1-5	2012
60)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Transport Properties of Vanadium Phosphate glasses,	idarbha J. of Science,7,( 3-4) 21-25	2012
61)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Effect of ZnO content on ultrasonic velocities and elastic constants of semiconducting borate glasses,	idarbha J. of Science, 7, 7,( 3-4) ,50-55	2012
62)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Optical properties of CuO-MnO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> Glasses,	International Journal of Basic and Applied Research ,2(2), 9-13	2012
63)	S.U. Patil, S.S. Yawale, S.P. Yawale	Conductivity study of - polymer electrolyte doped with ZnO nanocomposite ceramic filler	Bulletin of Materials Science 37(6):1403-1409.	2014
64)	S.U. Patil, S.S. Yawale, S.P. Yawale	Optical Properties of SiO <sub>2</sub> Nanoparticles Doped - Polymer Electrolyte Nanocomposite Films	Research & Reviews: Journal of Physics 3 (1),	2014
65)	S.U. Patil, S.S. Yawale, S.P. Yawale	Conductivity Study of ZrO <sub>2</sub> Solid Polymer Electrolyte Doped Nanocomposite	Int. Journal of Renewable Energy 4(1),	2014
66)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Electrical conduction in CuO-MnO-B <sub>2</sub> O <sub>3</sub> glasses	Int. Res. J. of Science & Engineering, 2(4),145-149	2014
67)	S.U. Patil, S.S. Yawale, S.P. Yawale	Optical Behaviour of PEO-LiClO <sub>4</sub> -ZnO Nanocomposite Polymer Electrolyte Films	International Journal of Research in Advent Technology,2,(3), 226-229	2014
68)	G.T. Lamdhade, K.B. Raulkar, S.S. Yawale, S.P. Yawale	Fabrication of SnO <sub>2</sub> -ZnO multilayer-PPy ammonia gas sensor for detection.	Indian Journal of Physics 89 (10),1025-1030	2015
69)	N.V. Shirbhate, S.V. Tambakhe, S.P. Yawale, S.V. Pakade	Investigation of Thiophene-Based Polymer Composition Such as LED	International Journal of Electronics, Communication and Soft Computing, Special issue,239-241	2015
70)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Study of physical and electrical properties of CuO-MnO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> Glasses	Int. Res. J. of Science & Engineering, 3 (3):77-83	2015
71)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Physical And Transport Properties of CuO-MnO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> Glasses	International Journal of Scientific Engineering and Applied Science (IJSEAS)1, (2), 6-12	2015
72)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Hopping Conduction Mechanism in Amorphous CuO-Bi <sub>2</sub> O <sub>3</sub> Semiconducting Pellets	International Journal of Innovative Science, Engineering & Technology, 2 ( 4),209-213	2015
73)	P.A. Fartode, S.S. Yawale,	Study of Transport and Electrical Properties of PEO: PVP:NaClO <sub>2</sub>	International Journal of Chemical and Physical Sciences 4, special	2015

	S.P. Yawale	Based Polymer Electrolyte	issue,60-64	
74)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Hopping conduction Mechanism in Amorphous CuO-Bi <sub>2</sub> O <sub>3</sub> semiconducting pellets,	International Journal of innovative science ,engineering&technology (IJSET), 2(4), 209-213	2015
75)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Physical & Transport properties of CuO-MnO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> glasses,	International Journal of scientific,engineering and applied sciences (IJSEAS), 1(2),6-12	2015
76)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Synthesis and characterization of CuO-MnO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> Glasses,	International Journal of scientific,engineering&applied sciences (IJSEAS),2(3),16-21	2015
77)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Electrical properties of CuO-MnO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> Glasses,	International Journal of innovative Science ,Engineering &Technology (IJSET),2(6),33-35	2015
78)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Electrical properties of CuO-MnO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> Glasses, ,	International Journal of scientific,engineering and applied sciences (IJSEAS), 1(3),565-568.	2015
79)	W.J. Gawande, S.S. Yawale, S.P. Yawale	Study of Physical and Electrical properties of CuO-MnO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> Glasses	International Research Journal of science engineering (IRJSE), 3I(3),77-83	2015
80)	P.D. Shirbhate, S.V. Pakade, S.P. Yawale	Preparation and Characterization of Polymer Composite polythiophene.	Transactions of the Indian Institute of Metals 69 (3),	2016
81)	M.A Giri, S.P. Yawale, S.S. Yawale	Spectral Behaviour of Infrared Spectra of Silver Doped Lead BorateGlasses.	International Journal of Engineering Technology Science and Research,3(3),95-98	2016

### National Conferences:

Sr. No	Name of Author	Title of the paper	Name of Conference/ Workshop	Year
1)	W.J.Gawande S.P. Yawale, S.S. Yawale	Ultrasonic velocity and Elastic constants measurement in some borate glasses	VI National symposium on Ultrasonics, S. V. University Tirupati (16-17 Sept, 1994)	1994
2)	W.J.Gawande S.P. Yawale, S.S. Yawale	Environmental Impact assessment on biomass through e.m.f. and resistance	National symposium on Eco-Environmental Impact & Organic Response, V.M.V. Amravati (15-17,Oct. 1994).	1994
3)	W.J.Gawande S.P. Yawale,	Magnetic susceptibility of DA	E solid state physics symposium (BARCSponsored),	1994

	S.S. Yawale	ZnFeCrO <sub>4</sub> & ZnMnCrO <sub>4</sub> samples	Jaipur (27-31, Dec. 1994)	
4)	W.J.Gawande S.P. Yawale, S.S. Yawale	Electronic conduction in CuO- Bi <sub>2</sub> O <sub>3</sub> Pellets	82 <sup>nd</sup> Session of Indian Science Congress Jadhavpur University, Calcutta (3-8 Jan.1995)	1995
5)	W.J.Gawande S.P. Yawale, S.S. Yawale	Electrical conduction in CuO-B <sub>2</sub> O <sub>3</sub> glasses	National conference on Recent Trends in composites,Shivaji Science College, Amravati (28Feb - 2Mar , 2001)	2001
6)	W.J.Gawande S.P. Yawale, S.S. Yawale	Thermal conductivity of CuO-B <sub>2</sub> O <sub>3</sub> glasses	National conference on Recent Trends in Composites, Shivaji Science College, Amravati (28Feb -2Mar , 2001)	2001
7)	W.J.Gawande S.P. Yawale, S.S. Yawale	Project Method – A innovative method of teaching physics	RTTBAS-2009, PhulsinghNaik. Mahavidyalaya, Pusad Dist. Yavatmal (3 Jan. 2009) PP 24, P 156-159.	2009
8)	W.J.Gawande S.P. Yawale, S.S. Yawale	Development of CO <sub>2</sub> gas sensor instrumentations using soft molecularelectronics,	NCNST-2011, ShriShivaji Science College, Nagpur ( 21-22 Feb. 2011) PP-11P52-55	2011
9)	W.J.Gawande S.P. Yawale, S.S. Yawale	Optical and transport properties of Cu doped AS <sub>2</sub> S <sub>3</sub> Thin films synthesized by chemical bath depositionmethod,	National Conference on materials : Atom to molecule (MAM-2011), ShriShivaji Science College,Nagpur (16 Dec.2011).	2011
10)	W.J.Gawande S.P. Yawale, S.S. Yawale	Effect of ZnO content on ultrasonic velocity and elastic constants of semiconducting BorateGlasses,	National seminar on Technological Innovations with Enviromental integrity (NSTIEI- 2012) H.V.P.M.,s College of Engineering andTechnology ,Amravati (28 Feb 2012).	2012
11)	W.J.Gawande	Participated-National conference on Role of Basic sciences in emerging Industrialscenario (RBSEIS-2012),	Ram Meghe Institute of Technology and Research, BadneraDist.Amravati (8Apr2012).	2012
12)	W.J.Gawande S.P. Yawale,	Synthesis and characterization of	National Conference on Lasers	2012

	S.S. Yawale	CuO-B <sub>2</sub> O <sub>3</sub> glasses,	and advanced materials(NCLAM-2012), Dept. of Physics, S.G.B. Amravati University, Amravati(29-30May 2012).	
13)	W.J.Gawande S.P. Yawale, S.S. Yawale	Electrical conduction in CuO-B <sub>2</sub> O <sub>3</sub> glasses	National conference on Recent Trends in Physics(NCRTP-2012), Dept. of Physics,MungsajiMaharajMahavidyalaya,DarwhaDist. Yavatmal(26-27Oct.2012) PP01.	2012
14)	W.J.Gawande S.P. Yawale, S.S. Yawale	Transport properties of CuO-MnO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> glasses,	National conference on Recent Initiatives towards green electronics(NCRIGE-2013),P.G.Dept. ofElectronics,BrijlalBiyani science college,Amravati (8-9 Feb2013) PP45.	2013
15)	W.J.Gawande S.P. Yawale, S.S. Yawale	Optical properties of CuO-MnO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> glasses,	National conference on Materials Science: Trends and future (NCMS-2014), Dept. of Physics, BhartiyaMahavidyalaya, Amravati(10-11 Jan2014).	2014
16)	W.J.Gawande S.P. Yawale, S.S. Yawale	Transport properties of CuO-MnO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> glasses,	National conference on material characterization and their applications(NCMCA-2014), Dept. of Physics,AnandNiketanCollege,W arora Dist.Chandrapur (6 Feb2014).	2014
17)	W.J.Gawande S.P. Yawale, S.S. Yawale	Transport properties of CuO-MnO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> glasses, National conference on advanced materials	(NCAM-2014), Dept. of Physics, NabiraMahavidyalaya,KatolDist. Nagpur (1 Mar 2014).	2014
18)	W.J.Gawande S.P. Yawale, S.S. Yawale	Structural study of CuO-B <sub>2</sub> O <sub>3</sub> glasses,	National conference on Recent development in material science and Technology (RDMST-2014), Dept. of Physics, Arts,commerce and science college,	2014

			KoradiDist.Nagpur (11 Oct. 2014).	
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### International Conferences:

19)	S.P. Yawale, S.V. Pakade and C.S. Adgaonkar	Electrical properties of 80V <sub>2</sub> O <sub>5</sub> - 20P <sub>2</sub> O <sub>5</sub> semiconducting glass in presence of magnetic field.	Proc. Solid State PhysSympBARC, Bombay, 30C (1987)p. 65.	1987
20)	S.P.Yawale, S.V. Pakade, P.K.Agnihotri and C.S. Adgaonkar	Elastic constants of 75V <sub>2</sub> O <sub>5</sub> - 25P <sub>2</sub> O <sub>5</sub> semiconducting glass	Proc. Solid State PhysSymp BARC, Bombay, 30C (1987)p. 66	1987
21)	S.P.Yawale, S.V.Pakade, Y.R. Paranjapey and C.S. Adgaonkar	Effect of past electric field on dc- conductivity and dielectric constant of CuSO <sub>4</sub> .5H <sub>2</sub> O crystal at roomtemperature.	75 <sup>th</sup> session of Indian Science Congress, Pune (1988) p. 43	1988
22)	P.K.Agnihotri, S.P.Yawale, S.V.Pakadeand C.S.Adgaonkar	Empirical formula for the sound velocity in binary liquid mixtures	National Symp. On Ultrasonic Applications to molecular interaction Nagpur Dec.15- 17,1988 p.35	1988
23)	S.V.Pakade, S.P.Yawaleand C.S.Adgaonkar	Elastic constants of xAs-15Sb-(85- x)Se glasses.	National Symp. On Ultrasonic applications to molecular interaction, Nagpur, Dec.15-17, 1988 p.48.	1988
24)	S.P.Yawale, S.V. Pakade and C.S.Adgaonkar	Analysis of the two phase data in binary liquid system water + phenol below its critical temperature.	Proc. Solid State PhysSymp. Bhopal University, Bhopal, Dec. 20-23, 1988	1988
25)	S.V. Pakade, S.P.Yawale and C.S. Adgaonkar	Theoretical and experimental investigation of the activation energies of V <sub>2</sub> O <sub>5</sub> -P <sub>2</sub> O <sub>5</sub> semiconducting glasses".	Proc. Solid State PhysSymp, Bhopal University, Bhopal 31C, (1988) p. 77	1988
26)	S.V.Pakade, S.P. Yawale and C.S. Adgaonkar	Ultrasonic velocity and absorption measurement in V <sub>2</sub> O <sub>5</sub> -P <sub>2</sub> O <sub>5</sub> semiconducting glass".	Proc. Solid State Phys. Symp, Bhopal University, Bhopal 31C (1988) p. 266.	1988
27)	S.P.Yawale, C.S. Adgaonkar, S.V. Pakade and P.K.Agnihotri	Ultrasonic velocity and absorption measurementin binary liquid mixtures".	trasonic International 89 (CSIC) Madrid, Spain, July 3-7, 1989	1989

28)	P.K.Agnihotri, C.S.Adgaonkar, S.P.Yawale and S.V. Pakade	"Effect of steric factor on molecular interaction in binary liquid mixtures".	Ultrasonics International 89 (CSIC) Madrid, Spain July 3-7, 1989.	1989
29)	S.P. Yawale, S.V. Pakade and C.S. Adgaonkar	The dielectric constant measurement in critical binary liquid system	10th IUPAC Conf On Physical Organic Chemistry, Haifa, Israel Aug. 5-10, 1990 p. 269	1990
30)	D.K.Burghate, V.S.Deogaonkar S.V. .Pakade & S.P. .Yawale	Thermal conductivity of lead bismuth glasses	Solid State Physics Symposium (BARC) University of Rajasthan, Jaipur, Dec.27-31,1994	1994
31)	S.V.Pakade, S.P.Yawale & W. J.Gawande	Ultrasonic velocity and elastic constant measurement in some borate glasses	VI National Symposium on Ultrasonics, Tirupati, Sept.16-17, 1994	1994
32)	W.J.Gawande, S.V.Pakade, S.P.Yawale & K. M.Kulkarni	Environmental impact assessment on biomass through e.m.f. and resistance	National Symposium on Eco- Environmental Impact & Organism Response, Govt. Vidarbha Mahavidyalaya, Amravati, Oct.15-17,1994.	1994
33)	W.J.Gawande, S.V.Pakade & S.P. .Yawale.	Magnetic susceptibility of ZnFeCrO <sub>4</sub> & ZnMnCrO <sub>4</sub> samples	Solid State Physics Symposium (BARC), University of Rajasthan, Jaipur, Dec.27- 31,1994.	1994
34)	W.J.Gawande, S.V.Pakade, S.P. Yawale, S.G.Motke and D.K.Burghate	Space charged limited conduction in amorphous Semiconductor-Polyesterene- Semiconductor (SPS) sandwich material.	2nd International conference on space charge in solid dielectrics Antibes, Juan-les-Pins (France) April 2-7, 1995.	1995
35)	W.J.Gawande, S.G.Motke, S.V.Pakade & S.P. .Yawale	Electronic conduction in CuO- Bi <sub>2</sub> O <sub>3</sub> pellets"	82, Indian Science Congress, Calcutta Jan. 3-8, 1995.	1995
36)	D.K.Burghate, V.S.Deogaonkar S.V. .Pakade & S.P. .Yawale	AC conductivity of lead bismuth glasses"	82, Indian Science Congress, Calcutta, Jan. 3-8, 1995	1995
37)	W.J.Gawande S.P. Yawale, S.S. Yawale	Thermal conductivity of V <sub>2</sub> O <sub>5</sub> - P <sub>2</sub> O <sub>5</sub> glasses	International conference & Exhibition on Thermal treatment of materials, Heat treat show 195, Bombay. (3-6, February, 1995)	1995
38)	W.J.Gawande S.P. Yawale,	Space charged limited conduction	2 <sup>nd</sup> International conference on space charge in solid dielectrics,	1995

	S.S. Yawale	in amorphous semiconductor – Polystyrene – semiconductor (SPS) sandwich material.	Paris (2-7 April, 1995)	
39)	W.J.Gawande S.P. Yawale, S.S. Yawale	Dc-Electrical conductivity and thermoelectric power measurements in CuO-B <sub>2</sub> O <sub>3</sub> Glasses	4 <sup>th</sup> International symposium on advanced materials, Islamabad, Pakistan (17-21 Sept.19 95)	1995
40)	S.B. Sawarkar, V.S. Deogaonkar, S.V. Pakade, and S.P. Yawale	hermally stimulated discharge currents in lead borate glasses	International symposium on Discharge and Electrical Insulation in Vacuum, EIT DE TOURS-FRANCE, June 30-July 5,2002.	2002
41)	S.A. Waghule, S.M.Yenorkar, G.T.Lamdhade, V.R.Bhonde, S.S.Yawale and S.P.Yawale	Conducting polymer-Polypyrrole as a CO <sub>2</sub> gas sensor	46 <sup>th</sup> DAE Solid State Physics Symposium,Organised by BARC,Tromby,Mumbai,atJiwajiUniversity,Gwalior. 26-30 Dec. 2003.	2003
42)	G.T.Lamdhade, S.S.Yawale and S.P.Yawale	Stannic oxide along with $\alpha$ -Alumina and titanium oxide as a H <sub>2</sub> S gas sensor	46 <sup>th</sup> DAE Solid State Physics Symposium,Organised by BARC,Tromby,Mumbai,atJiwajiUniversity,Gwalior. 26-30, 2003	2003
43)	Y.B.Gandole, S.P. Yawale and S.S.Yawale:	Modeling and simulation of Piezo-electric crystal	National conference on Statistic and Computer applications, Organized by Govt. V.I. S. H, Amravati, on Nov 28-30,2005.	2005
44)	Y.B.Gandole, S.P. Yawale and S.S.Yawale	Virtual instrumentation for Pizeo-electric transducers characteristics	National conference on trends in technology (NCTT) 2005, Trivendram	2005
45)	W.S.Barde , S.P. Yawale and S.S.Yawale	Ionic conductivity of polypyrrole synthesized by chemical oxidation method	National conference on recent advances in materials Science, Organized by Dr. B.R.Ambedkar College, Nagpur, on Jan 21-22,2006	2006
46)	S.U. Patil, S.S. Yawale, S.P. Yawale	Conducting Behavior Of ZnO Doped Nanocomposite Polymer Electrolyte	3 <sup>rd</sup> international conference on Recent trends in engineering and management, Rajasthan	2016

### 23. Other Initiatives/Major WorkDone:



- **Recently Accredited the Govt. Vidarbha Institute of Science and Humanities (GVISH), Amravati by NAAC, Bangalore with Grade “A” (CGPA:3.32)**
- Successfully implemented and utilized the funds of UGC and DPC and other funding agencies
- Organized various programs through NSS, NCC and Sports including the social and extension activities being a part of Institutional Social Responsibilities
- Enhanced academic activities in the Institute

**24.** Books published: with ISBN No., Without ISBN No., Chapters in books.

- Book Edited: Nano Materials Synthesis Applications ISBN 978-81-925842-2-5, Dombiwali Shikshan Prasarak Mandal, Dombiwali (E) Mumbai. Ed.2015. One chapter entitled “Nanosize Tin Oxide doped Polyaniline Conducting Polymer based CO<sub>2</sub> gassensor.”