

Personal Profile

Google Scholar: <https://scholar.google.co.in/citations?user=37sQgLkAAAAJ&hl=en>

Orcid: <https://orcid.org/0000-0001-5235-6162>

ResearchGate: https://www.researchgate.net/profile/Kishor_Sonawane

CONTACT DETAILS

Dr. Kishor M. Sonawane (Associate Professor) **Nationality/Citizenship:** Indian

Office Address: Department of Physics, Fergusson College, Pune- 411004,
www.fergusson.edu

Res. Address: A-6, Kunal Apartment, Dr C. D. Deshmukh Smruti-I Hsg. Soc., Sanghavi
Nagar, D.P. Road, Aundh, Pune 411007, Maharashtra. INDIA

Email: kmsonawane@gmail.com, kishor.sonawane@fergusson.edu

Phone: +91-20-67656060 (Work), +91-98222779799 (Mob.)

EDUCATION

Bachelor's Degree (s):	Pune	Physics	1990
Master's Degree (s):	Pune	Physics	1992
Ph.D. :	S.R.T.M.University Nanded	Physics	2006
Others (if any)B.Ed.	Pune	Science	1994

EMPLOYEE HISTORY

Bharati Vidyapith's, Yashwantrao Mohite College, Pune	04/12/1992
Sanghavi Kesari College, Chinchwad, Pune	10/08/1993
Fergusson College, Pune	4/12/1996

RESEARCH PROJECTS:

Sr. No.	Title of the Project	Name of the Funding Agency	Duration (Year)		Type (Minor/Major)	Status (Completed / Ongoing)
			From	To		
1	Synthesis and Characterization of Transparent Conducting Oxide (TCO) thin films for Gas Sensing Applications	B.C.U.D. , University of Pune BCUD/OSD/ 672 dt.23/04/2011	2009	2011	Minor	Completed (Rs. 2.5 Lacs)
2	Study of Metal Oxide Semiconductor thin films for Gas Sensing Applications	DAE-BRNS 34/14/61/2014- BRNS/2143 dated 19/12/2014	April 2015	2018	Major	Completed (Rs. 31.24 Lacs)
3	Synthesis of earth abundant, low cost, environmentally harmless Cu_2MSnX_4 (CNTS/Se)-based thin film solar cells	BRNS Project No. 58/14/19/2019-BRNS/10604	Oct. 2019	--	Major	Ongoing (Rs. 34.86 Lacs)

iii) Books Published as single author or as editor

Sr. No.	Title with page nos.	type of Book & Authorship	Publisher & ISSN/ISBN No.	Whether peer reviewed	No. of co-authors	Whether you are the main author
1.	F.Y. B.Sc. Practical Physics		Prashant Publications; 978-93-89492-03-3	Yes	4	No

iv) Ph.D. Supervision

Sr. No.	Name of Student/ Scholar	Degree (M.Phil/ Ph.D.)	Title of Thesis	Registration Details	Status	Year of Award	University
1.	Ajay Kawade	Ph.D.	Studies On Mesoporous SnO_2 Films For Dye Sensitized Solar Cell Application	29/04/2013	Ongoing	--	SPPU
2.	A. B. Kanawade	Ph.D.	Synthesis and characterization of novel	03/07/2015	Ongoing	--	SPPU

			hierarchical 1D and 2D Nanostructured composites for multifunctional applications: Photocatalysts, Sensors and Field emitters				
3.	Pankaj S Kolhe	Ph.D.	Synthesis and Investigation of Doped and Undoped Metal Oxides for Monitoring Toxic Gases	21/04/2016	Degree awarded	2019	SPPU

LIST OF PUBLICATIONS:

- 1. Growth of ZnO Nanorods using Hydrothermal for Gas Sensing Application**
Research Journal of Physical Sciences, Vol. 3(2), 1-5, March (2015)
- 2. Laser raman & FTIR spectra of 2-amino-5-methylpyridine**
Asian Journal of Physics, Vol. 9 No. 2 (2000), pg. 509
- 3. Laser raman & IR spectra of biomolecule 6 aminoucil**
Asian Journal of Physics, Vol. 9 No. 2 (2000), pg. 487-489
- 4. Morphology dependent field emission characteristics of polypyrrole thin film emitters**
Technical Digest, 2014 27th International Vacuum Nanoelectronics Conference, 6-10 July, 2014 Engelberg, Switzerland
- 5. Polypyrrole nanostructures and their field emission investigations**
Modern Physics Letters B, Vol. 29, Nos. 6 & 7 (2015) 1540035 (5 pages)
- 6. Synthesis and characterization of In doped ZnO thin films for LPG sensing**
978-1-4673-1043-7/12/\$31.00 ©2012 IEEE, DOI: 10.1109/ISPTS.2012.6260965
- 7. Synthesis of Ag doped SnO₂ thin films for the evaluation of H₂S gas sensing properties**
Physica B: Condensed Matter, 524 (2017), pp.90-96.
- 8. Gas sensing performance of Al doped ZnO thin film for H₂S detection**
Journal of Alloys and Compounds, 748 (2018), pp.6-11.
- 9. Facile Hydrothermal Synthesis of WO₃ Nanoconifer Thin Film: Multifunctional Behavior for Gas Sensing and Field Emission Applications**
Journal of Inorganic and Organometallic Polymers and Materials, (2018), pp.1-8.
- 10. Synthesis of bismuth tungstate (Bi₂WO₆) nanoflakes and their field emission investigation**
In DAE SOLID STATE PHYSICS SYMPOSIUM (2015), (Vol. 1731, No. 1, p. 120029), AIP Conference Proceedings.
- 11. Effect of Cu Doping Concentration on H₂S Gas Sensing Properties of Cu Doped SnO₂ Thin Films**
Applied Physics A: Material Science and Processing, 125 (5) (2019), Pages 372
- 12. Synthesis of WO₃ Nanoflakes by Hydrothermal Route and its Gas Sensing Application**
Sensors and Actuators A: Physical, 304 (2020) Pages111877

LIST OF CONFERENCE / SEMINAR :

Sr. No.	Title of the paper presented	Title of Conference / Seminar	Organized by	Level
1	Laser Raman and FTIR spectra of 2-amino-5-methylpyridine	Lasers & Spectroscopy Feb.-25-28,2003	Physics Department, Meerut College, Meerut	National
2	Laser Raman and IR spectra of biomolecule: 6-aminouracil	Lasers & Spectroscopy Feb.-25-28,2003	Physics Department, Meerut College, Meerut	National
3	I-V Characteristics of Calotropis procera(Rui) cell	90 th Indian Science Congress: Frontier Science and cutting edge technology (3-7 Jan 2003) LP-08	Banglore University, Banglore	International
4	Attenuation Coefficient for Photon energy absorption of Mercury	91 st Indian Science Congress (3-7 Jan 2004) LP 23	Punjab University Chandigarh	International
5	Measurement of absorption coefficient of mercury at various energies 0.123Mev to 1.33Mev	93 rd Indian Science Congress (3-7 Jan 2006) LP 516	ANGARU University Hyderabad	International
6	Gas sensing characteristics of Nanocrystalline molybdenum-doped SnO ₂ thin film for detection of methanol vapor	13th National Seminar on Physics & Technology of Sensors P-9-1 (2008) 3-5 March 2008	Dept. of Electronics Science , University of Pune	National
7	Synthesis and characterization of SnO ₂ thin film	INNOVATION-2009-10	N.A.C. & Sci. College, Ahmednagar	Regional
8	National Seminar	Nanomaterials for Devices and its Applications 24-26 June 2010	Dept. of Physics , University of Pune and DIAT, Pune	National
9	Synthesis and characterization of SnO ₂ thin film as gas sensor	INNOVATION-2010	H.V. Desai College, Pune	Regional
10	Nanocrystalline cobalt doped SnO ₂ thin film	Advanced Material Development and Performance (AMDP-2011) July 2011	University of Tokushima, Japan	International
11	Indian Vacuum Society Symposium	Thin films: Science & Technology (9-12 Nov. 2011	BARC, Mumbai	International
12	Synthesis & characterization of In doped ZnO thin film	AVISHKAR Dec.-2011	B. Gholap College, Sangavi, Pune	Zonal

13	Synthesis and characterization of Al doped SnO ₂ thin film as sensor	Recent Trends in Biophysics & Medical Electronics Feb.-2012	K.J.S. College, Kopargaon, Dist.: A'Nagar	State
14	Synthesis & characterization of In doped ZnO thin film	International Symposium on Physics and Technology of sensors (ISPTS-1) March-2012	Centre for Materials and Electronics Technology (CMET), Pune	International
15	Seminar	Development in Thin Film Processing and Characterization Technology 8 th -9 th Oct. 2012	Bharati Vidyapeeth Y.M. College, Pune	National
16	Synthesis and characterization of Cu doped SnO ₂ thin film.	INNOVATION 2012	B.J.S. College , Wagholi, Pune	Regional
17	Seminar	Recent Trends in Thin Film Deposition Techniques and Their Characterization 18-19 Dec. 2012	B.P.H.E. Societys , Ahmednagar College, Ahmednagar	State
18	Seminar	Frontiers In Physics VI 4 th – 5 th Jan. 2013	Department of Physics, Fergusson College, Pune	National
19	Synthesis and characterization of Cu doped SnO ₂ thin film as Gas Sensor	Functional Nanomaterials : Synthesis, Characterization and Applications 31 st Jan - 2 nd Feb. 2013	Department of Physics , University of Pune	National
20	International Conference	Recent Developments in Stratigraphy	Fergusson College, Pune	International
21	Enhanced Field Emission from the Electrochemically Synthesized Polypyrrole Nanorods	DAE-BRNS Conference on Organic Devices: The Future Ahead (ODeFA-2014) March 3-6, 2014,	Bhabha Atomic Research Centre, Mumbai	National
22	Polypyrrole nanostructures and their field emission investigations	Advance Material Development Performance (AMDP-2014) July 2014	Korea Maritime and Ocean University, South KOREA,	International
23	Room Temperature H ₂ S Gas Sensor using Hydrothermally grown ZnO nanorods	Advanced in Electronics & its Interdisciplinary Applications 19- 20 Sept. 2014	Fergusson College, Pune	National
24	Growth of ZnO Nanorods using Hydrothermal for	102 nd Indian Science Congress Conference	University of Mumbai	International

	Gas Sensing Application	(ISCA) 3 rd – 7 th Jan. 2015		
25	Synthesis of Graphene Oxide by modified Hummers Method and its Characterization	Advanced Materials and Applications 4-5 Mar. 2016	Fergusson College, Pune	National
26	Tungsten Oxide Thin Film Deposition by Spray Pyrolysis and their Characterization	Functional Eco-friendly Smart Emerging Materials (FESEM) 11-12 Mar. 2016	B. Gholap College, Sangvi Pune	International
27	Fabrication of WO ₃ Film by Facile Route and Their Characterization	105 th International Conference by Indian Science Congress, 16 th March to 20 th March 2017	Manipur University, Imphal	International
28	Gas Sensing study of Al doped ZnO thin Film fabricated by Spray Pyrolysis technique.	Advanced Material Development and Performance (AMDP-2017) 11 th July to 15 th July 2017.	S.P. Pune University, Pune	International
29	Seminar	Frontiers in Solar Physics 23 rd - 25 th Jan 2018.	Department of Physics, Fergusson College, Pune	National
30	Synthesis WO ₃ Nanotrees based Gas Sensor and its Field Emission Investigation	Nanotechnology for Human Welfare (ICNHW-2018) on 1 st -3 rd February 2018	College of Engineering Pune (CoEP), Pune and Microbiologists Society, India Savitribai Phule Pune University, Pune	International
31	Thermoluminescence and Photoluminescence study of K ₂ Ca ₂ (SO ₄) ₃ : Cu nanophosphor for the measurement of high dose gamma rays	Luminescence and its Applications [NCLA-2018], 14 th -16 th Feb. 2018	CSIR-NIIST, Trivandrum (Kerala), INDIA	National
32	Improved Field Electron Emission Behaviour of Ag Nanoparticles Supported Bi ₂ S ₃ Nanowires	DAE SOLID STATE PHYSICS SYMPOSIUM (2019) 18-22 Dec. 2019	IIT Jodhpur, Rajasthan, India	National

List of Workshop/ Seminars:

Sr. No.	Workshop/ Seminars	Title	Organized by	Level
1	One Day Workshop	Syllabus for M.Sc. Physics (Departmental Courses) 16 Jan. 1999	University of Pune and Department of Physics, Fergusson College, Pune	University
2	Workshop	Awareness and	University of Pune and	University

		Teaching of New topics in F.Y.B.Sc. Physics Syllabus 14 Sept. 2002	Department of Physics, Fergusson College, Pune	
3	One Day Workshop	T.Y.B.Sc. Physics revision of syllabus for core courses 17 Jan. 2004	University of Pune and Department of Physics, Fergusson College, Pune	University
4	Workshop	Workshop for Teachers : T.Y. B.Sc. Physics 20-21 Feb. 2004	University of Pune	University
5	Workshop	C-programming and Computational Physics 27-28 Jan 2005	Department of Physics, University of Pune	University
6	Seminar	Remembering Einstein 21 Jan. 2006	University of Pune and B. Gholap College, Sangavi, Pune	University
7	Training Programme	Teachers training Programme(Soft Skill) 15-20 Oct. 2007	Fergusson College, Pune	College
8	One Day Workshop	M.Sc –II Physics Syllabus Revision 27 Dec. 2008	University of Pune and Department of Physics, Fergusson College, Pune	University
9	One Day Workshop	T.Y. B.Sc. Physics Syllabus Framing Workshop 15 Dec. 2009	University of Pune and HPT. RYK College, Nasik	University
10	Seminar	Intellectual property rights and patents 26 Nov. 2011	Department of Physics, Fergusson College, Pune	College
11	Training Programme	One day training program for Laboratory Staff as Resource person 13 Dec. 2011	Department of Physics, Fergusson College, Pune	College
12	Workshop	F.Y.B.Sc. Question Bank preparation under “ Examination Reforms- UGC XI Plan” 28-30 March 2012	Fergusson College, Pune	College
13	One Day Workshop	Panel discussion on Research Methodology 27 March 2012	Fergusson College, UGC and SPEED	University
14	One Day Workshop	Interaction of Physics Teacher with DST Program Advisory	Department of Physics, University of Pune	University

		Committee (PAC) Members 15 Sept. 2012		
15	One Day Workshop	Revision of M.Sc.-I Physics Syllabus 5 March 2013	University of Pune	University
16	Workshop	Revision of M,Sc. I Physics Syllabus (credit system) 5 th March 2013	Department of Physics, Fergusson College, Pune	University
17	One Day Workshop	Workshop on New Choice Based Credit System for PG Courses 29 th June 2013	BCUD University of Pune & B. Gholap College, Sangavi, Pune	University
18	Training Programme	Research Planning & Technical Paper Writing 13 th – 14 th Jan 2014	University of Pune & Fergusson College, Pune	University

Dr. Kishor M. Sonawane