# **Curriculum Vitae**

# I] Personal Profile:

Name	Dr. Mane Amitkum	ar Tanajirao	
Contact Number	9527634958		
Email id	amitmane100@gmai	l.com	(200)
<b>Permanent Address</b>	Sarkarwada, Near Ra	m Mandir Chauk,	
	A/P- Khanapur, Tal-	Khanapur, Dist- Sangli 415307	
	(Maharashtra) India.	A. A	
<b>Present Address</b>	C/o Dr. Mayuri Desa		
	Medical Officer, Prin	<b>E</b>	
	At.post: Talawali, Ta		
	415719 (Maharashtra		
Gender	Male	Date of Birth	16 <sup>th</sup> June 1981
Height	180 cm	Weight	65 kg
Marital Status	Married	Nationality	Indian

# II] Educational Qualification: M.Sc. B.Ed. Ph.D.

Sr.	Degree	Subject	Grade	Marks	Institute /	University	Month
No	Degree Subject	Grauc	Marks	Department	Offiversity	& Year	
1	Ph.D.	Physics	I	-	School of Physical Sciences	Solapur University, Solapur	June, 2017
2	B.Ed.	Math's. & Science	I	434/ 700	Smt. Putlaben Shah College of Education, Sangli	Shivaji University, Kolhapur	April, 2004
3	M.Sc.	Physics	I	1450/ 2400	School of Physical Sciences, Solapur	Shivaji University, Kolhapur	April, 2003
4	B.Sc.	Physics	I dist.	1772/ 2500	Balwant College, Vita	Shivaji University, Kolhapur	April, 2001
5	H.S.C	Physics, Chemistry ,Biology	II	328/ 600	Mahatma Gandhi vidyalaya, Khanapur	Maharashtra State Board of Secondary & Higher Secondary Education, Pune	Feb. 1998
6	S.S.C	English, Math's, Science	П	444/ 750	Mahatma Gandhi vidyalaya, Khanapur	Maharashtra State Board of Secondary & Higher Secondary Education, Pune	Feb. 1996

## **III] Teaching Experience: 15 Years**

Sr. No.	Post	Institute	Duration	Total
1	Assistant Professor	Maharshi Parshuram College of Engineering & Techchnology, Velneshwar (Guhagar)	17 <sup>th</sup> July 2015 – till date	6.6 Y
2	Assistant Professor	Maharshi Parshuram College of Engineering & Techchnology, Velneshwar (Guhagar)	6 <sup>th</sup> August, 2012 - 31 <sup>st</sup> December, 2013	1.4 Y
3	Assistant Professor	G.M.Vedak institute of Engineering & Techchnology, Tala (Raigad)	20 <sup>th</sup> August, 2011 - 05 <sup>th</sup> August, 2012	11 M
4	Lecturer	Rajendra Mane College of Engineering & Technology	19 <sup>th</sup> August, 2008 -19 <sup>th</sup> August 2011	3Y
5	Lecturer	Rajaram Shinde College of Engineering & Techchnology, Chiplune	May. 2006 - Aug. 2008	1.9 Y
6	Lecturer	D.P Bhosale college, Koregaon	June. 2004 - Apr. 2006	1.10Y

## **IV] Research Experience: 1.7 Years**

Sr. No.	Post	Institute	Duration	Total
1	Research Scholar	School of Physical Sciences, Punyashlok Ahilyadevi Holkar, Solapur University, Solapur	1 <sup>st</sup> January 2014 – 16 <sup>th</sup> July 2015	1.7 Y

## **V] Research Paper Publications: 17 (International)**

Sr. No.	Publisher	Journal	Vol./ Year/ Page No.	Title of paper	Authors	Impact factor
1	Taylor & Francis	International Journal of Polymeric Materials	59 (10), (2010) 777- 785	Synthesis and characterization of polyaniline: TiO <sub>2</sub> nanocomposites	S. G. Pawar, S. L. Patil, M. A. Chougule, A. T. Mane, D. M. Jundale, V. B. Patil	1.970
2	Springer Link	Journal of Materials Science: Materials in Electronics 21 (12), 1332-1336	21 (2010) 1332– 1336	Nanocrystalline ZnO thin films: optoelectronic and gas sensing properties	S. L. Patil, S. G. Pawar, M. A. Chougule, A. T. Mane V. B. Patil	1.798
3	Elsevier	Synthetic Metals	189 (2014) 94-99	Highly selective and sensitive room temperature NO <sub>2</sub> gas sensor based on Polypyrrole thin films	S.T.Navale, A.T. Mane, M.A.Chou gule, R.D.Sakhar e, S.R.Nalage, V. B.Patil	2.299
4		Measurement	50 Camphor sulfonic acid (2014) (CSA) doped		S.T. Navale, A.T. Mane,	1.742

	Elsevier		363- 369	polypyrrole (PPy) films: Measurement of microstructural and optoelectronic properties	A.A. Ghanwat, A.R. Mulik, V.B. Patil	
5	Elsevier	Synthetic Metals	195 (2014) 228- 233	Room temperature NO <sub>2</sub> sensing properties of polythiophene films	S.T.Navale, A.T. Mane, G.D. Khuspe, M.A.Chougule, V.B.Patil	2.299
6	Elsevier	Organic Electronics	16 (2015) 195- 204	Nitrogen dioxide (NO2) sensing performance of p-polypyrrole/n-tungsten oxide hybrid nanocomposites at room temperature	A.T. Mane, S.T. Navale, Shashwati Sen, D.K. Aswal, S.K. Gupta, V.B. Patil	3.471
7	Elsevier	Ceramics International	40 (10) (2014) 16495- 16502	NO <sub>2</sub> sensing properties of nanostructured tungsten oxide thin films	A.T. Mane, S.B. Kulkarni, S.T. Navale, A.A.Ghanwat, N.M.Shinde, JunHo Kim, V.B. Patil	2.758
8	Elsevier	Synthetic Metals	189 (2014) 111- 118	Highly sensitive, reproducible, selective and stable CSA-polypyrrole NO <sub>2</sub> sensor	S.T.Navale, M.A.Chougule, V.B.Patil, <b>A.T.</b> <b>Mane</b>	2.299
9	Springer Link	Journal of Materials Science: Materials in Electronics	26 (2) (2014) 1087- 1096	Synthesis, structural, compositional, morphological and optoelectronic properties of tungsten oxide thin films	S. B. Kulkarni, P. S. Kulkarni, A. T. Mane, R. N. Mulik, S. T. Navale, V. B. Patil	1.798
10	Elsevier	Organic Electronics	19 (2015) 15-25	Room temperature NO <sub>2</sub> gas sensing properties l of DBSA doped PPy– WO <sub>3</sub> hybrid nanocomposite sensor	A.T. Mane, S.T. Navale, V.B. Patil	3.471
11	Elsevier	Synthetic Metals	199 (2015) 187- 195	Microstructural, optical and electrical transport properties of WO <sub>3</sub> nanoparticles coated polypyrrole hybrid nanocomposites	A.T. Mane, S.T. Navale,, R.C. Pawar, C.S. Lee, V.B. Patil	2.299
12	Springer Link	Ionics	20 (11) (2014) 1607- 1616	Polypyrrole–NiO hybrid nanocomposite films: highly selective, sensitive, and reproducible NO <sub>2</sub>	S. R. Nalage, A. T. Mane, R. C. Pawar C. S. Lee, V. B. Patil	2.119

				sensors		
13	Elsevier	Synthetic Metals	204 (2015) 1-9	Ammonia sensing properties of polyaniline/a-Fe2O3 hybrid nanocomposites	D.K.Bandgar, S.T.Navale, A.T.Mane, S.K.Gupta, D.K.Aswal, V.B.Patil	2.299
14	Royal Society of Chemistry	RSC Advances	4 (84) (2014) 44547- 44554	Highly selective and sensitive CdS thin film sensors for detection of NO <sub>2</sub> gas	S. T. Navale, A. T. Mane, M. A. Chougule, N. M. Shinde, JunHo Kim, V. B. Patil	3.289
15	Springer Link	Journal of Materials Science: Materials in Electronics	26 (11) (2015) 8497- 8506	Dodecyl benzene sulfonic acid (DBSA) doped polypyrrole (PPy) films: synthesis, structural, morphological, gas sensing and impedance study	A. T. Mane, S. D. Sartale, V. B. Patil	1.798
16	Elsevier	Progress in Organic Coatings	87 (2015) 88-94	Synthesis and structural, morphological, compositional, optical and electrical properties of DBSA-doped PPy– WO <sub>3</sub> nanocomposites	A.T. Mane, S. T. Navale, R.S. Mane, Mu. Naushad, V.B. Patil	2.577
17	Springer Link	SN Applied Sciences	360 (2021)	Hydrothermally grown 1D ZnO nanostructures for rapid detection of NO2 gas	P. R. Godse, A. T. Mane, Y. H. Navale, S. T. Navale, R. N. Mulik, V. B. Patil	3.360

### VI] Book Publication:

- > PPy-WO<sub>3</sub> HYBRID NANOCOMPOSITE FOR GAS SENSING APPLICATIONS, LAMBERT Academic Publishing, ISBN: 978-620-2-00538-8.
- ➤ **A Text Book of ENGINEERING PHYSICS-I**, Planet Publishing House, Hyderabad, ISBN: 978-81-93337-44-8.

### VII] Book Chapter

> Spectroscopy of Polymer Nanocomposites, CHAPTER 15 "X-ray photoelectron spectroscopy of nanofillers and their polymer nanocomposites" page no, 452-456

#### VIII] Poster Presentation/Conference/Workshop (14)

- ➤ One day workshop on "Inter-collegiate Research Convention AVISHKAR-2016-17" September 24,2016 Organized by Department of Students Welfare University of Mumbai at Maharshi Parshuram College of Engineering & Techchnology, Velneshwar (Guhagar).
- International conference on "Functional Materials and Microwaves (ICFMM-2015)" December 28-30, 2015 Organized by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad. (Third Price in poster presentation).
- ➤ National conference "Latest Trends in Fundamental Research", February 21<sup>st</sup> 2015, in association with RSC-West India section, organized by School of Chemical Sciences, Solapur University, Solapur.
- ➤ Seminar on "Latest Developments in Material Characterization Techniques", February 5-6, 2015, School of Physical Sciences, Solapur University, Solapur.
- > Room Temperature Operating Low Cost Gas Sensor System- Poster & demo presentation
  - (9<sup>th</sup> Maharashtra state inter university research convention AVISHKAR-2014, January 21-23, 2015, Maharashtra animal and fishery science university, Nagpur.)
- ➤ Highly selective and sensitive Nitrogen dioxide (NO₂) sensing performance of p-polypyrrole/n-tungsten oxide hybrid nanocomposites at room temperature (U.G.C. sponsored national seminar on "Recent Trends In Nanomaterial And Their Applications", (RTNM-2015), January 23-24, Sangola College, Sangola)
- ➤ DBSA doped Polypyrrole-WO<sub>3</sub> hybrid nanocomposite sensor for detection of nitrogen dioxide (NO<sub>2</sub>) gas- oral presentation
  (U.G.C. sponsored two day national conference on "Nanomaterials and Nanomaterial Based Devices", 2014, December 23-24, Dattajirao Kadam Arts, Science and Commerce Collage, Ichalkaranji)
- ➤ Fabrication of Low Cost Gas Sensor System- Poster & demo presentation

  (University level research Festival AVISHKAR -2014, December 25-26, Fabtech Technical Campus and Research Center, Sangola, Solapur. Second Price pure science group)
- ➤ CSA Doped PPy Thin Film Sensor For NO<sub>2</sub> Monitoring

  (DAE-BRNS Conference on Organic Devices: The Future Ahead ODeFA–2014 March 3-6, 2014, Bhabha Atomic Research Centre, Anushakti Nagar, Mumbai, Maharashtra, INDIA.)
- ➤ NO<sub>2</sub> Sensing Properties of Nanostructured WO<sub>3</sub>Thin Films

(2<sup>nd</sup> International Conference on Physics of Materials and Materials based Device Fabrication, (ICPM-MDF-2014) 13-15<sup>th</sup> January, 2014 Department of Physics, Shivaji University, Kolhapur, INDIA.)

- > Room Temperature Gas Sensing Properties of Polyaniline Thin Films
  - (Homi Bhabha Centenary BRNS-GND University Workshop on MOLECULAR/ORGANIC ELECTRONIC DEVICES (MOED-2009) September 22-25, 2009, GND University, Amritsar)
- One week STTP on "Methodology For Effective Teaching Learning Process"
  July 4-9, 2011, Adarsh Institute of Technology, Vita.
- ➤ One week STTP on "Advanced Materials in Engineering", December13-17, 2010, SSPM'S College of Engineering, Kankavali.
- ➤ Nanocrystalline ZnO Thin Films: Optoelectronic and Gas Sensing Properties

  (Homi Bhabha Centenary BRNS-GND University Workshop on

  MOLECULAR/ORGANIC ELECTRONIC DEVICES (MOED-2009) September 22-25,
  2009, GND University, Amritsar)

#### IX] Membership

- ➤ Indian Society of Mechanical Engineers (ISME)
- ➤ Instrument Society of India (ISOI)
- ➤ International Society for Research and Development (ISRD)
- ➤ Member of Scope Database International Advisory Board (ID: IA0000349)

### **X] Research Interest:**

- ➤ Design and development of organic, inorganic and organic/inorganic hybrid nanomaterials for the application in gas sensors, supercapacitors and solar cells.
- Processing techniques include chemical oxidative polymerization, in-situ polymerization, sol-gel processing, hydrothermal growth and electrochemical deposition.
- ➤ The research emphasis is to achieve novel properties for various applications through control of nanostructure and atomic engineering of materials through processing and composition design.

### XI] Instruments Handled:

- ❖ Spin Coater (APEX Instruments, Model: SCU 2007)
- UV-Visible spectrophotometer
- ❖ KEITHLEY 6514/2400 System Electrometer

- ❖ Regaku table top X-ray diffractometer
- ❖ Impedance analyzer (WAYNE KERR, Model: 6500B)
- High temperature Furnaces
- \* Room and high temperature gas sensing measurement unit
- Hydrothermal unit
- Solar Simulator
- ❖ Potentiostat/Galvanostat (WPG 100e Won A Tech)

#### XII] Experimental Techniques known:

- Chemical polymerization
- ❖ Sol-gel synthesis
- Chemical bath deposition
- Hydrothermal synthesis
- Electrodeposition
- Solid state synthesis
- Dip coating
- **❖** SILAR

### **XIII] Other Techniques known:**

- **❖** Transmission electron microscopy (TEM)
- ❖ Field Emission Scanning Electron Microscopy (FESEM),
- ❖ Fourier Transform Infrared Spectroscopy (FTIR),
- ❖ X-ray photoelectron spectroscopy (XPS),
- Contact Angle Meter, etc.

### XIV] Computer proficiency:

MS Office, Origin 6.1, Origin 8.1, Chemdraw Ultra 2002-1, Impedance software eissa-0.1b, etc.

#### XV] Academic & Administrative Achivements:

- ➤ In charge Principal of VPM's, Maharshi Parashuram College of Engineering, Velneshwar. During my tenure, the college has achieved "B" grade of NAAC in first cycle.
- ➤ **Paper Setter** of Applied Physics of University of Mumbai.
- ➤ **Moderator** of Applied Physics of University of Mumbai.
- > First Year Coordinator.
- Member of Anti-ragging committee

- **➤** Member of **Grievance committee**
- > Chairperson of **Unfair means committee**
- > Coordinator of Research Culture Committee

### **XVI] References:**

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## Prof. L.N. Singh

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Lonere, Raigad, Maharashtra, India

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Dale.	Di. Malle A. I