



## **FACULTY PROFILE**



**NAME** : **Prof. Dr. PUJARI V. B.**  
**QUALIFICATION** : **MSc., Ph.D.**  
**Email ID** : **vbpujari@kbpcollegevashi.edu.in**  
**DEPARTMENT** : **Physics**  
**DESIGNATION** : **Professor**  
**EXPERIENCE (Yrs.)** : **33**  
**SPECIALIZATION** : **Applied Electronics /  
Thin Film Photo-voltaics (PEC Cells)**

### **PUBLICATIONS:**

**Books Publications-** Nil

**Research Publications in Journals-**

1. Effect of antimony dopant on the structural and optical properties of CdSe thin films, E. U. Masumdar, V. B. Pujari, S. H. Mane and L. P. Deshmukh, *J. Pure & Appl. Phys.*, 40 (2002) 624 – 632.
2. Chemically Synthesized (Cd, Hg) Se Pseudo-binaries: Some Characteristic Properties, V. B. Pujari, V. B. Gaikwad, E. U. Masumdar, P. D. More and L. P. Deshmukh, *Turk. J. Phys.*, 26 (2002) 407 – 413.
3. Some studies on chemically synthesized antimony doped CdSe thin films, E. U. Masumdar, V. B. Pujari, V. B. Gaikwad, and L. P. Deshmukh, *J. of Mat. Chem. Phys.*, 77 (2003) 669 – 676.
4. CdSe: Sb electrode for photo electrochemical applications, E. U. Masumdar, V. B. Pujari, V. S. Karande, S. H. Mane, P. N. Bhosale and L. P. Deshmukh, *J. Mater. Sci.: Mater. in Elect.*, **14** (2003) 43 – 48.



## FACULTY PROFILE

5. Growth Mechanism and Properties of  $Cd_{1-x}Mn_xSe$  Semi magnetic Semiconductor Thin Films, V. S. Karande, **V. B. Pujari**, S. H. Mane and L. P. Deshmukh, *Turk. J. Phys.*, **27** (2003) 559 – 567.
6. Electrochemical studies of n-  $Cd_{1-x}Mn_xSe$  thin film photo detector, V. S. Karande, S. H. Mane, **V. B. Pujari** and L. P. Deshmukh, *J. Mater. Sci.: Mater. in Elect.*, **15** (Issue-7)(2004) 419 – 423.
7. Mercury-Cadmium-Selenide Thin Film Layers: Structural, Microscopic and Spectral Response Studies, **V. B. Pujari**, E. U. Masumdar, J. S. Dargad, V. S. Karande, S. H. Mane and L. P. Deshmukh, *J. of Mat. Chem. Phys.*, **83** (Issue - 1) (2004) 10 -15.
8. A study of cadmium mercury telluride (CMT) thin film structures: some physical observations and characteristics, S. H. Mane, V. S. Karande, **V. B. Pujari**, L. P. Deshmukh, *J. of Mater. Sci: Mater. in Elect.*, **16** (Issue: 11-12) (2005) 733-739.
9. (Cd, Mn) Se Semimagnetic Semiconductor Thin Films: Growth from Solution, Structural Analysis and Optical Properties, V. S. Karande, S. H. Mane, **V. B. Pujari** and L. P. Deshmukh, *J. of Material Letters*, **59** (2005) 148 - 152.
10. n- $Hg_xCd_{1-x}Se$  thin film electrodes for photoelectrochemical applications, **V. B. Pujari**, D. J. Dhage and L. P. Deshmukh, *Ind. J. of Engg. & Mater. Sci.*, **15** (2008) 275 – 280.
11. Photoelectrochemical investigations on  $Hg_xCd_{1-x}Se$  thin film electrode / electrolyte system, **V. B. Pujari** and L. P. Deshmukh, *Turk. J. Phys.*, **32** (2008) 105-114.
12. Electrical Transport and Spectral Response of Hg Zn S Thin Films, A. R. Pawar, D. R. Kendre and **V. B. Pujari**, *Internat. J. of Advances in Electrical and Electronics Engineering (IJAEED)*, 2013, 2 (1), 68-73.
13. Photo-voltaic Study of Hg Doped ZnS Thin Films, A. R. Pawar, D. R. Kendre and **V. B. Pujari**, *Inter. J. of Application or Innovation in Engineering and Management (IJAIEM)*, ISSN 2319 – 4847, 2013, 2 (2), 285-289.
14.  $CdS_{1-x}Te_x$  thin film photo electrodes for electrode/electrolyte interfaces, **V. B. Pujari**, *Inter. J. of Application or Innovation in Engineering and Management (IJAIEM)*, ISSN 2319 – 4847, 2013, 2 (2), 56-59.
15. Thickness dependent study of Cd (S, Se) thin film electrodes for photoelectrochemical cells, **V. B. Pujari**, *Inter. J. of Application or Innovation in Engineering and Management (IJAIEM)*, ISSN 2319 – 4847, 2013, 2 (3), 207-211.
16. Effect of window layer on Cd (S, Se) thin film photoelectrodes for PEC cells, **V. B. Pujari**, *Inter. J. of Application or Innovation in Engineering and Management (IJAIEM)*, ISSN 2319 – 4847, 2013, 2 (4), 339-345.
17. Electrochemical Photovoltaic Detector with Pseudo-Binary  $Hg_x Cd_{1-x} Te$  Thin Film Photoelectrodes, **V. B. Pujari**, *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE – On line Version)*, ISSN (Online): 2278 – 8875, 2013, 2 (5), 1707-1712.
18. Structural And Microscopic Studies On Mercury Zinc Sulfide Thin Films, A.R. Pawar, D. R. Kendre **V. B. Pujari**, *Journal of Shivaji University (Science & Technology) On line Version, ISSN-Science-0250-5347*, 2014-15, 41 (2), 1 - 3.



## FACULTY PROFILE

19. Electrical and Micro-structural Properties of Cadmium Chalcogenides: A Comparative Study, V. K. Kamble, **V. B. Pujari**, *International Journal of Emerging Technology and Advanced Engineering (IJETAE – On line Version)*, 2015, 5 (3), 172-176.
20. Preparation and Properties of Cadmium Chalcogenide Thin Films, V. K. Kamble, **V. B. Pujari**, *International Journal of Chemical and Physical Sciences (IJCPS)*, On line Version, ISSN No. 2319-6602, 2015, 5 (special issue 8 ICPMCS), 72-77.
21. Cadmium Chalcogenide Thin Films: Deposition by Chemical Bath and their Characteristic Properties, V. K. Kamble, **V. B. Pujari**, *International Journal of Application or Innovation in Engineering & Management (IJAIEEM) On line Version*, ISSN No. 2250-2459, 2016, 5 (3), 116-120.
22. Tellurium Doped Cadmium Selenide Thin Film Electrodes for Photo-electrochemical Cells, **V. B. Pujari**, *Edu World – A Multidisciplinary International Peer Reviewed / Refereed Journal*, ISSN: 2319-7129, Volume – XII, Number-8 (Special Issue), 2018, 287-291.
23. Electrical Transport and Structural Studies of Lead Cadmium Selenide Thin Films, **V. B. Pujari**, *Edu World – A Multidisciplinary International Peer Reviewed / Refereed Journal*, ISSN: 2319-7129, Volume – XII, Number-8 (Special Issue), 2018, 282-286.
24. Optical and Surface Morphological Studies of Lead Cadmium Selenide Thin Films, **V. B. Pujari**, *Edu World – A Multidisciplinary International Peer Reviewed / Refereed Journal*, ISSN: 2319-7129, Volume – XII, Number-8 (Special Issue), 2018, 277-281.
25. Cadmium doped Zinc Sulphide Thin Film Electrodes for Photo-electrochemical application, **V. B. Pujari**, *Journal of the Maharaja Sayajirao University of Baroda*, ISSN : 0025-0422, Volume- 48, No.1, 2020, 32-36.
26. Deposition of Cadmium doped Zinc Selenide Thin Films and its Characteristics, P. P Borgaonkar, J. S Bharambe, **V.B. Pujari**, *International Journal of Recent Technology and Engineering (IJRTE)*, Online version, ISSN: 2277-3878, Volume-8 Issue-5, 2020, 4452-4455.

### **Papers Published in conference proceedings –**

1. Transport mechanism in chemically synthesized antimony –cadmium-selenide thin films, E. U. Masumdar, V. B. Gaikwad, **V. B. Pujari**, P. D. More and L. P. Deshmukh, in “*Proc. National Symposium on Science and Technology of Vacuum and Thin Films (IVSNS-2001)*”, Sept. 5-7, 2001, IISc., Bangalore, India.
2. Ternary CuBiSe<sub>2</sub> thin films: Preparation and Properties, V. B. Gaikwad, E. U. Masumdar, **V. B. Pujari**, P. D. More and L. P. Deshmukh, in “*Proc. National Symposium on Science and Technology of Vacuum and Thin Films (IVSNS-2001)*”, Sept. 5-7, 2001, IISc., Bangalore, India.
3. Micro structural studies of CdSe:Sb thin films, E. U. Masumdar, **V. B. Pujari**, V. B. Gaikwad, G. S. Shahane, P. N. Bhosale and L. P. Deshmukh, in “*Proc. National*



## FACULTY PROFILE

*Symposium on Science and Technology of Vacuum and Thin Films (IVSNS-2001)*,  
Sept. 5-7, 2001, IISc., Bangalore, India.

4. (Cd, Hg) Se thin films: growth from the solution and characteristics, **V. B. Pujari**, V. B. Gaikwad, V. B. Patil, E. U. Masumdar and L. P. Deshmukh, in "*Proc. National Symposium on Science and Technology of Vacuum and Thin Films (IVSNS-2001)*", Sept. 5-7, 2001, IISc., Bangalore, India.
5. The Fabrication Details and Physical Studies of CdMnS Dilute Magnetic Semiconductor Thin Layers, J. S. Dargad, S. H. Mane, V. S. Karande, **V. B. Pujari** and L. P. Deshmukh, in "*Proc. on National Seminar on Science and Technology of Thin Films (NSSTTF-2004)*", Oct. 16-17, 2004, Rajarshi Shahu Mahavidyalaya, Latur, M.S., India.
6. Studies on Nanocrystalline (Cd, Hg) Te Detector Thin Films, S. H. Mane, V. S. Karande, **V. B. Pujari** and L. P. Deshmukh, in "*Proc. on National Seminar on Science and Technology of Thin Films (NSSTTF-2004)*", Oct. 16-17, 2004, Rajarshi Shahu Mahavidyalaya, Latur, M.S., India.
7. Structural and electrical properties of  $Cd_{1-x}Mn_x$  Se thin films: A correlation, V. S. Karande, S. H. Mane, **V. B. Pujari** and L. P. Deshmukh, in "*Proc. on National Seminar on Science and Technology of Thin Films (NSSTTF-2004)*", Oct. 16-17, 2004, Rajarshi Shahu Mahavidyalaya, Latur, M.S., India.
8. Electrochemical radiation detector with  $Hg_xCd_{1-x}Se$  photo electrodes: effect of technical parameters, **V. B. Pujari**, D. J. Dhage, J. S. Dargad, E. U. Masumdar and L. P. Deshmukh, in "*Proc. on National Seminar on Science and Technology of Thin Films (NSSTTF-2004)*", Oct. 16-17, 2004, Rajarshi Shahu Mahavidyalaya, Latur, M.S., India (**BEST PAPER PRESENTATION AWARD**).
9. Optical Properties of  $Hg_xCd_{1-x}Se$  Thin Film Photovoltaics Detectors, **V. B. Pujari** and L. P. Deshmukh, in "*Proc. on National Seminar on New Horizons in Physics (NS-NHP-2007)*", Jan. 20-21, 2007, Dept. of Physics, Yashawantrao Chavan Institute of Science, Satara, M.S., India.
10. Pseudo-binary  $Hg_xCd_{1-x}Se$  thin film electrodes for photo electrochemical application: effect of window layer, **V. B. Pujari** and L. P. Deshmukh, in "*Proc. on National Conference on Physics of Semiconductor Devices and Smart Materials (NC-PSDSM-2007)*", Dec. 22-23, 2007, Dept. of Physics, Karmaveer Bhaurao Patil College, Vashi, Navi Mumbai, M.S., India.
11. Mercury Cadmium Selenide thin film electrodes for photo electrochemical application: influence of electrode thickness, **V. B. Pujari** and L. P. Deshmukh, in "*Proc. on National Conference on Physics of Semiconductor Devices and Smart Materials (NC-PSDSM-2007)*", Dec. 22-23, 2007, Dept. of Physics, Karmaveer Bhaurao Patil College, Vashi, Navi Mumbai, M.S., India.
12. Photo Electrochemical Studies on Mercury Cadmium Selenide Thin Film Electrodes, **V. B. Pujari** and L. P. Deshmukh, in "*Proc. on National Conference on Physics of Semiconductor Devices and Smart Materials (NC-PSDSM-2007)*", Dec. 22-23, 2007, Dept. of Physics, Karmaveer Bhaurao Patil College, Vashi, Navi Mumbai, M.S., India.





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13. Growth and Characteristic Properties of Mercury Cadmium Selenide Thin Films Grown By Solution Technique, **V. B. Pujari** and L. P. Deshmukh, in “*Proc. on National Conference on Physics of Semiconductor Devices and Smart Materials (NC-PSDSM-2007)*”, Dec. 22-23, 2007, Dept. of Physics, Karmaveer Bhaurao Patil College, Vashi, Navi Mumbai, M.S., India.
14. Structural and Microscopic studies on Mercury Zinc Sulfide thin films, A. R. Pawar, D. R. Kendre and **V. B. Pujari**, in “*Proc. on International Conf on Materials and Materials based device fabrication (ICMBDF 2012)*”, Jan 17-19, 2012, Shivaji University, Kolhapur, M. S., India.
15. Studies on Optical and Electrical Properties of Pb doped CdSe Thin Films, D. R. Kendre, A. R. Pawar and **V. B. Pujari**, in “*Proc. on International Conf on Materials and Materials based device fabrication (ICMBDF 2012)*”, Jan 17-19, 2012, Shivaji University, Kolhapur, M. S., India.
16. Spectro-structural and Microscopic Properties of  $Pb_xCd_{1-x}Se$  Thin Films, D. R. Kendre, A. R. Pawar and **V. B. Pujari**, in “*Proc. on International Conf. on Recent Trends on Advanced Materials (ICRAM 2012)*”, Feb. 20-22, 2012, VIT University, Vellore, T. N., India.
17. Electrical Transport and Spectral Response of (Hg, Zn) S Thin Films, A. R. Pawar, D. R. Kendre and **V. B. Pujari**, in “*Proc. on International Conf. on Recent Trends on Advanced Materials (ICRAM 2012)*”, Feb. 20-22, 2012, VIT University, Vellore, T. N., India.
18.  $CdS_{1-x}Te_x$  Thin Film Electrodes for Photoelectrochemical Cells, **V. B. Pujari**, and L. P. Deshmukh, in “*Proc. on International Conf. on Recent Trends in Advanced Materials (ICRAM 2012)*”, Feb. 20-22, 2012, VIT University, Vellore, T. N., India.
19. Spectral, electrical and micro-crystallographic characteristics of Lead Cadmium Selenide thin films, D. R. Kendre, A. R. Pawar and **V. B. Pujari**, “*Proc. on International Conf. on Molecular Spectroscopy of Advanced Materials and Biomolecules (IMSAB- 2012)*”, Aug. 7 - 9, 2012, Bishop Moore College, Mavelikara, Alappuzha, Kerala, India.
20. Electrical and Spectro-Structural Properties of  $Hg_xZn_{1-x}S$  Thin Films Synthesized by Chemical Route, A. R. Pawar, D. R. Kendre and **V. B. Pujari**, “*Proc. on International Conf. on Molecular Spectroscopy of Advanced Materials and Biomolecules (IMSAB- 2012)*”, Aug. 7 - 9, 2012, Bishop Moore College, Mavelikara, Alappuzha, Kerala, India.
21. Mercury Cadmium Selenide thin film electrodes for photoelectrochemical detector systems, **V. B. Pujari**, D. J. Dhage and L. P. Deshmukh, “*Proc. on International Conf. on Molecular Spectroscopy of Advanced Materials and Biomolecules (IMSAB- 2012)*”, Aug. 7 - 9, 2012, Bishop Moore College, Mavelikara, Alappuzha, Kerala, India.
22. Chemosynthesis of  $[Bi_2Se_3: Cu]$  thin films: Structural Investigation and Electrical Transport Studies, V. B. Gaikwad, S. T. Shete and **V. B. Pujari**, “*Proc. on International Conf. on Functional Materials @ nanoscale: Concerns and Challenges (ICFMNCC-2015)*”, March 9 - 11, 2015, Karmaveer Bhaurao Patil Mahavidyalaya, Pandharpur, M. S., India.



## FACULTY PROFILE

23. Synthesis and characterization of chemical vapor deposited Nickel catalyzed Carbon nanotubes, U. B. Suryavanshi, G. P. Mane, **V. B. Pujari**, S. P. Yadav and C. H. Bhosale, "Proc. of 4<sup>th</sup> Rayat Vidnyan Parishad – 2018 (Avishkar) on Innovations for Sustainable Development, Dec. 29-31, 2018, Karmaveer Bhaurao Patil College, Vashi, Navi Mumbai, M.S., India.
24. H<sub>2</sub>, Cl<sub>2</sub>, fuel cells: Carbon nano-beads coated with Platinum and Tin over porous ceramic for Hydrogen electrode, U. B. Suryavanshi, G. P. Mane, **V. B. Pujari**, S. P. Yadav and C. H. Bhosale, "Proc. of 4<sup>th</sup> Rayat Vidnyan Parishad – 2018 (Avishkar) on Innovations for Sustainable Development, Dec. 29-31, 2018, Karmaveer Bhaurao Patil College, Vashi, Navi Mumbai, M.S., India.

### **PAPERS PRESENTED:**

#### **Research Papers presented in international conferences-**

1. Presented a paper entitled 'CdS<sub>1-x</sub>Te<sub>x</sub> Thin Film Electrodes for Photo-electrochemical Cells, **V. B. Pujari**, and L. P. Deshmukh, in Two days *International Conf. on Recent Trends in Advanced Materials (ICRAM 2012)*', Feb. 20-22, 2012, VIT University, Vellore, T. N., India.
2. Presented a paper entitled 'Mercury Cadmium Selenide thin film electrodes for photo-electrochemical detector systems, **V. B. Pujari**, D. J. Dhage and L. P. Deshmukh, in Three days *International Conf. on Molecular Spectroscopy of Advanced Materials and Biomolecules (IMSAB- 2012)*', Aug. 7 - 9, 2012, Bishop Moore College, Mavelikara, Alappuzha, Kerala, India.
3. Presented a paper entitled 'Synthesis and characterization of cobalt ferrite (CoFe<sub>2</sub>O<sub>4</sub>) by sol gel auto combustion method, **V. B. Pujari** and U. B. Suryavanshi, in *Two days International E-Conference on 'Drug Discovery, Development and Applications' June 15<sup>th</sup> – 16<sup>th</sup>, 2020, Dept. of Chemistry, Karmaveer Bhaurao Patil College, Vashi, M.S., India.*
4. Presented a paper entitled 'Synthesis of highly dense Ce<sub>1-x</sub>Gd<sub>x</sub>O<sub>2-x/2</sub> (x = 0 to 0.30) solid solutions using nano-crystalline powders and a plausibility of reduction of ceria at higher sintering temperature' P. S. Gaikar, **V. B. Pujari**, M. B. Kadam, L. D. Jadhav, in *International Seminar on 'Energy Storage and Conversion Devices', Jan. 12<sup>th</sup>, 2021, Dept. of Physics, Karmaveer Bhaurao Patil College, Vashi, M.S., India.*
5. Presented a paper entitled 'Synthesis and Characterization of pure and copper doped ZnO nanoparticles', U. B. Suryavanshi and **V. B. Pujari**, in *Two days International E-Conference on 'Futuristic Aspects in Nanotechnology' Mar. 15<sup>th</sup> – 16<sup>th</sup>, 2021, Dept. of Chemistry, Karmaveer Bhaurao Patil College, Vashi, M.S., India.*

#### **Research Papers presented in national conferences-**



## FACULTY PROFILE

1. Presented a paper entitled '(Cd, Hg) Se thin films: growth from the solution and characteristics, **V. B. Pujari**, V. B. Gaikwad, V. B. Patil, E. U. Masumdar and L. P. Deshmukh, in Two days *National Symposium on Science and Technology of Vacuum and Thin Films (IVSNS-2001)*', Sept. 5-7, 2001, IISc., Bangalore, India.
2. Presented a paper entitled 'Electrochemical radiation detector with  $Hg_xCd_{1-x}Se$  photo electrodes: effect of technical parameters, **V. B. Pujari**, D. J. Dhage, J. S. Dargad, E. U. Masumdar and L. P. Deshmukh, in Two days *National Seminar on Science and Technology of Thin Films (NSSTTF-2004)*', Oct. 16-17, 2004, Rajarshi Shahu Mahavidyalaya, Latur, M.S., India.
3. Presented a paper entitled 'Optical Properties of  $Hg_xCd_{1-x}Se$  Thin Film Photovoltaics Detectors, **V. B. Pujari** and L. P. Deshmukh, in Two days *National Seminar on New Horizons in Physics (NS- NHP-2007)*', Jan. 20-21, 2007, Dept. of Physics, Yashawantrao Chavan Institute of Science, Satara, M.S., India.
4. Presented a paper entitled 'Mercury Cadmium Selenide thin film electrodes for photo electrochemical application: influence of electrode thickness', **V. B. Pujari** and L. P. Deshmukh, in Two days *National Conference on 'Physics of Semiconductor Devices and Smart Materials (NC-PSDSM-07)*' Dec. 22-23, 2007, Dept. of Physics, KBP College, Vashi, Navi Mumbai, M.S., India.
5. Presented a paper entitled 'Pseudo-binary  $Hg_xCd_{1-x}Se$  thin film electrodes for photo electrochemical application: effect of window layer', **V. B. Pujari** and L. P. Deshmukh, in Two days *National Conference on 'Physics of Semiconductor Devices and Smart Materials (NC-PSDSM-07)*', Dec. 22-23, 2007, Dept. of Physics, KBP College, Vashi, Navi Mumbai, M.S., India.
6. Presented a paper entitled 'Growth of L-aniline crystals with slow evaporation method; U. B. Suryavanshi and **V. B. Pujari** in *National Seminar on 'Recent Trends in Physics'*, Feb. 3, 2016, Dept. of Physics, Karmaveer Bhaurao Patil College, Vashi, M.S., India.
7. Presented a paper entitled 'Ni-GDC cermet as an Anode for Intermediate Temperature SOFC, A. U. Chavan, P. S. Gaikar, **V. B. Pujari**, M. B. Kadam and L. D. Jadhav, in *National Symposium on 'Green Approach in Synthetic Chemistry'*, Feb. 27, 2017, Dept. of Chemistry, Karmaveer Bhaurao Patil College, Vashi, M.S., India.
8. Presented a paper entitled 'Studies on Studies on different  $SnO_2$  nanostructures for VOC gas sensing, P. S. Gaikar, A. U. Chavan, M. B. Kadam, L. D. Jadhav and **V. B. Pujari**, in *National Seminar on 'Advances in Materials Science'* Jan. 31<sup>st</sup>, 2018, Dept. of Physics, Karmaveer Bhaurao Patil College, Vashi, M.S., India.
9. Presented a paper entitled 'Synthesis of cobalt ferrite nanoparticles by solid state reaction method' U. B. Suryavanshi and **V. B. Pujari** in *National Seminar on*



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*'Advanced Nano-materials and Nanotechnology' Jan. 11<sup>th</sup>, 2019, Dept. of Physics, Karmaveer Bhaurao Patil College, Vashi, M.S., India.*

10. Presented a paper (Poster) entitled 'Antimony doped Zinc Selenide Thin Films for Photo-catalytic Applications', **V. B. Pujari** in *National Conference 'Recent Trends in Photonic, Smart and Nano-Materials' Feb. 21<sup>st</sup>, 2019, Dept. of Physics, B. K. Birla College (Autonomous), Kalyan, M.S., India.*
11. Presented a paper entitled 'Growth and Characterization of L-aniline and Potassium Bromide Single Crystal, A. U. Chavan, U. B. Suryavanshi, L. D. Jadhav and **V. B. Pujari**, in *National Conference on 'Nanotechnology Research in Industry and Colleges', Feb.. 25<sup>th</sup>, 2019, Dept. of Chemistry, Karmaveer Bhaurao Patil College, Vashi, M.S., India.*
12. Presented a paper entitled 'Structural, morphological and electrical characterization of nano-crystalline  $Ce_{1-x}Gd_xO_{2-x/2}$  ( $x= 0$  to  $0.30$ ) solid solutions prepared using glycine nitrate process (GNP)' A. U. Chavan, **V. B. Pujari**, M. B. Kadam and L. D. Jadhav in *National Seminar on 'Shaping the Future with Nano-science and Nanotechnology' Jan. 8<sup>th</sup>, 2020, Dept. of Physics, Karmaveer Bhaurao Patil College, Vashi, M.S., India.*
13. Presented a paper entitled 'Nano-crystalline Gd-doped Ceria by combustion technique: Synthesis and characterization, M. B. Kadam, A. U. Chavan, L. D. Jadhav and **V. B. Pujari**, in *Two days National Conference on 'Disruptive Technology in Shaping the Future with New Innovations' Mar. 5<sup>th</sup> – 6<sup>th</sup>, 2020, Dept. of Chemistry, Karmaveer Bhaurao Patil College, Vashi, M.S., India.*

### **CONFERENCES/SEMINARS/WORKSHOPS ATTENDED:**

1. National Symposium on Science and Technology of Vacuum and Thin Films (IVSNS-2001)", Sept. 5-7, 2001, IISc., Bangalore, India.
2. National Seminar on Science and Technology of Thin Films" (NSSTTF-2004)", Oct. 16-17, 2004, Rajarshi Shahu Mahavidyalaya, Latur, M.S., India
3. *National Seminar on New Horizons in Physics (NS- NHP-2007)*", Jan. 20-21, 2007, Dept. of Physics, Yashawantrao Chavan Institute of Science, Satara, M.S., India.
4. International Conf. on Recent Trends on Advanced Materials (ICRAM 2012)", Feb. 20-22, 2012, VIT University, Vellore, T. N., India.
5. 4<sup>th</sup> International Conference on 'Life Skills Education' Organized by Rajiv Gandhi National Institute of Youth Development in collaboration with Dept. of Applied Psychology, Univ. of Mumbai and KBP College, Vashi during 7<sup>th</sup> – 9<sup>th</sup> Dec. 2012 at KBP College, Vashi, Navi Mumbai.
6. Workshop on Training Teachers for Interpersonal relations with students and self health organized by Vivekananda Kendra, Kanyakumari at KBP College, Vashi, Navi Mumbai on 11<sup>th</sup> – 12<sup>th</sup> Aug 2012.





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7. NAAC sponsored seminar on 'Quality and Excellence in Higher Education' organized by IQAC of KBP College, Vashi on 18<sup>th</sup> – 19<sup>th</sup> Nov. 2011.
8. One day workshop organized by V. G. Vaze College in association with BOS in Physics, Univ. of Mumbai to discuss the implementation of Revised Syllabus of Physics (Theory) for TYBSc on 31<sup>st</sup> July 2010.
9. State level seminar on 'Role of IQAC as a tool for reaccreditation with special reference to students' activities, progression and innovative practices' organized by YCIS, Satara on 10<sup>th</sup> – 11<sup>th</sup> Feb. 2009.
10. One day workshop organized by V. G. Vaze College in association with BOS in Physics, Univ. of Mumbai to discuss the implementation of Revised Syllabus of Physics (Theory) for TYBSc on 31<sup>st</sup> July 2010.
11. State level seminar on 'Role of IQAC as a tool for reaccreditation with special reference to students' activities, progression and innovative practices' organized by YCIS, Satara on 10<sup>th</sup> – 11<sup>th</sup> Feb. 2009.
12. One day workshop on 'NAAC Reaccreditation Process' organized by CKT College, Panvel on 10<sup>th</sup> Nov. 2009.
13. One day workshop on 'Scope of Syllabus for Applied Component for TYBSc Physics held at KJ Somaiya, Vidyavihar on 7<sup>th</sup> Feb. 2006.
14. Two days workshop for TYBSc Revised syllabus (Theory & Practicals) organized by Dept. of Physics, G. N. Khalsa College, Mumbai on behalf of BOS in Physics, Univ. of Mumbai on 18<sup>th</sup> – 19<sup>th</sup> Aug. 2004.
15. Workshop on 'Device grade materials development using Ion Beams' organized by Dept. of Physics, Univ. of Mumbai on 3<sup>rd</sup> – 4<sup>th</sup> Nov. 2003.
16. One day 'Seminar in Physics' organized by Dept. of Physics, MPASC College, Panvel on 26<sup>th</sup> March 2003.
17. Two Days Seminar on 'Energy Crisis and Resources' organized by Dept. of Physics and Electronics, KBP Mahavidyalaya, Pandharpur on 7<sup>th</sup> – 8<sup>th</sup> Feb. 2003.
18. Workshop on FYBSc Revised Syllabus 2002-2003 conducted by Dept. of Physics, V.P.M.'s B. N. Bandodkar College, Thane on behalf of BOS in Physics, Univ. of Mumbai held on 27<sup>th</sup> Feb. 2002.
19. One day workshop based on Revised syllabus of 'Electronic Instrumentation' organized by R. D. National College, Bandra, Mumbai on 10<sup>th</sup> Dec. 1994.

### **ACTIVITIES ORGANIZED:**

1. Convener, One day State level seminar on 'Recent Trends in Physics' organized by Dept. of Physics, Modern College, Vashi, on 31<sup>st</sup> Mar 2003. Prof. Arun Narsale, Forer Head, Dept. of Physics, University of Mumbai was the chief guest and delivered the Keynote address.
2. One day State level seminar on 'Century of Relativity' organized Dept. of Physics, KBP College, Vashi, on 3<sup>rd</sup> Dec. 2005. Prof. R. K. Manchanda, Former Senior



## **FACULTY PROFILE**

Professor at TIFR, Mumbai was the chief guest and delivered the Keynote address.

3. Convener, Two days National Conference on 'Physics of Semiconductor Devices & Smart Materials (NC-PSDSM)-07' (sponsored by UGC and DST) organized by Dept. of Physics, KBP College, Vashi, on 22<sup>nd</sup> – 23<sup>rd</sup> Dec. 2007. Prof. M. G. Takwale, Former Vice-Chancellor, Shivaji University, Kolhapur was the chief guest for Inaugural Function and delivered the Keynote address and Prof. S. H. Pawar, Former Vice-Chancellor, D. Y. Patil University, Kolhapur was the chief guest for Valedictory Function.
4. Convener, Two days State level Seminar on 'Recent Trends in Information and Communication Technology (RTICT-12)' (sponsored by UGC) organized by Dept. of Physics, KBP College, Vashi on 27<sup>th</sup> – 28<sup>th</sup> Jan. 2012. Dr. Padma Joshi, Director, C-DAC, was the chief guest and delivered the Keynote address.
5. Coordinator, One day National Seminar on 'Recent Trends in Physics' organized by Dept. of Physics, KBP College, Vashi, on 3<sup>rd</sup> Feb. 2016. Prof. Young Pak Lee, Dept. of Physics, Hanyang University, Seoul, South Korea was the chief guest and delivered the Keynote address.
6. Coordinator, One day National Seminar on 'Advances in Materials Science' organized by Dept. of Physics, KBP College, Vashi on 31<sup>st</sup> Jan. 2018. Prof. W. F. Pong, Dept. of Physics, Tamkang University, Taiwan was the chief guest and delivered the Keynote address.
7. Coordinator, One day National Seminar on 'Advanced Nanomaterials and Nanotechnology' organized by Dept. of Physics, KBP College, Vashi, on 11<sup>th</sup> Jan. 2019. Prof. Masaki Tanemura, Dept. of Physics, Nagoya Institute of Technology, Nagoya, Japan was the chief guest and delivered the Keynote address.
8. Coordinator, One day National Seminar on 'Advanced Nanomaterials and Nanotechnology' organized by Dept. of Physics, KBP College, Vashi, on 8<sup>th</sup> Jan. 2020. Prof. Deepak Dubal, Senior Lecturer (ARC future Fellow) Queensland University, Australia was the chief guest and delivered the Keynote address.
9. Coordinator, One day National Seminar on 'Energy Storage and Conversion Devices' organized by Dept. of Physics, KBP College, Vashi, on 8<sup>th</sup> Jan. 2020. Prof. K. Y. Rajpure, Head, Dept. of Physics, Shivaji University, Kolhapur was delivered the Keynote address and Dr. Abhishek C. Lokhande (Postdoctoral Fellow, Khalifa Univ, of Science and Technology, Abu Dhabi - UAE) was one of the Resource Persons.

### **RESOURCE PERSON / INVITED TALKS:**

1. Invited as a Resource Person for Rayat Inspire Camp held at KBP College, Vashi, from 26<sup>th</sup> – 30<sup>th</sup> Nov. 2018
2. Invited as a Resource Person for National Seminar on 'e-Governance' at Pragati College of Arts & Commerce, Dombivali on 4<sup>th</sup> Jan 2013.
3. National Seminar on 'Nanotechnology: Fundamentals and Applications' at CKT



## FACULTY PROFILE

College, Panvel on 28<sup>th</sup> Apr. 2012.

4. National Seminar on 'ICT based Teaching-Learning Systems' at Pragati College of Arts & Commerce, Dombivali on 13<sup>th</sup> Feb. 2011.
5. National Seminar on 'Contemporary Issues in the field of ICT' at CKT College on 16<sup>th</sup> Dec. 2010.
6. National Seminar on 'Astrophysics, Cosmology and Gravitation' at CKT College on 6<sup>th</sup> Feb. 2010.
7. National Seminar on 'Solar Energy: Alternative Source of Energy' at Maharaja Jivajirao Shinde Mahavidyalaya, Shrigonda, A'nagar on 1<sup>st</sup> Feb. 2010.
8. Two days State level workshop on 'Physics Education at Graduate level- a Scientific Approach to Crisis and Remedial Solutions' at Dayanand Science College, Latur during 5<sup>th</sup> – 6<sup>th</sup> Dec. 2009.
9. National Seminar on 'Nanosized Semiconductor Materials' (funded by UGC) at Annasaheb Awate College, Manchar, Dist. Pune on 7<sup>th</sup> Nov. 2009.

### **JUDGE/JURY/SESSION CHAIRPERSON:**

1. Science Exhibition, Chhatrapati Shikshan Mandal High School, Sanpada on 5<sup>th</sup> – 6<sup>th</sup> Dec. 2003.
2. Avishkar a Research Convention 2010 at CKT College, Panvel on 3<sup>rd</sup> Jan 2011.
3. Avishkar a Research Convention at Ramsheth Thakur College of Commerce and Science, Kharghar, Navi Mumbai on 15<sup>th</sup> Dec. 2016.
4. Avishkar a Research Convention at Ramnarain Ruia College, Mumbai on 14<sup>th</sup> Dec. 2019.
5. Chaired the session for Poster Presentation in One day *National Conference on 'Recent Trends in Photonic, Smart and Nano-Materials'* on Feb. 21<sup>st</sup>, 2019, Dept. of Physics, B. K. Birla College (Autonomous), Kalyan, M.S., India.
6. Chaired the session for Oral and Poster Presentation in One day *Interdisciplinary National Conference entitled as 'Recent Trends in Science and Technology'* at KLE Society's Science and Commerce College, Kalamboli, Panvel, Dist. Raigad on 7<sup>th</sup> Feb. 2020.

### **REFEREE FOR Ph. D. DEGREE:**

1. Evaluated one Ph. D. Thesis of **Mr. Suryavanshi R. V.** in the subject of Physics of Swami Ramanand Teerth Marathwada University, Nanded (SRTMUN) in Dec. 2013.
2. Evaluated one Ph. D. Thesis of **Mr. Varudkar H. A.** in the subject of Physics of Swami Ramanand Teerth Marathwada University, Nanded (SRTMUN) in Jan. 2023.

### **SELECTION / LOCAL INQUIRY / CAS COMMITTEE (UNIV. OF**



## FACULTY PROFILE

### MUMBAI)

#### **FDP/TRAINING COURSES COMPLETED:**

1. Participated and Completed an Orientation Program sponsored by UGC and conducted by Academic Staff College, University of Mumbai from 25<sup>th</sup> Oct. 1991 to 30<sup>th</sup> Nov. 1991.
2. Participated and Completed First Refresher Course sponsored by UGC and conducted by Academic Staff College, University of Pune from 4<sup>th</sup> Dec. 1997 to 31<sup>st</sup> Dec. 1997.
3. Participated and Completed Second Refresher Course sponsored by UGC and conducted by Academic Staff College, University of Mumbai from 3<sup>rd</sup> March 2002 to 26<sup>th</sup> March 2002.
4. Participated and Completed Third Refresher Course sponsored by UGC and conducted by Academic Staff College, University of Pune from 3<sup>rd</sup> March 2005 to 23<sup>rd</sup> March 2005.

#### **RESEARCH PROJECTS:**

1. Completed a minor research project entitled 'CdS<sub>1-x</sub>Se<sub>x</sub> Thin Films: Application to PEC Cells' which was funded by Univ. of Mumbai (Rs. 25,000/-) in the academic year 2007-08.
2. Completed a minor research project entitled '*CdS<sub>1-x</sub>Te<sub>x</sub> Pseudo-binaries: Growth, Properties and Application to Photo-electrochemical conversion*' which was funded by UGC (WRO), Pune (Rs. 1,00,000/-) during the academic year 2008-10.
3. Completed a minor research project entitled '*Effect of technical parameters on the performance of CdS<sub>1-x</sub>Se<sub>x</sub> thin film electrodes for PEC Cells*' which was funded by Univ. of Mumbai (Rs. 32,000/-) in the academic year 2009-10.
4. Completed a minor research project entitled 'Mercury Cadmium Telluride thin film electrodes for Photo- electrochemical detector system' which was funded by Univ. of Mumbai (Rs. 27,400/-) in the academic year 2012-13.
5. Completed a minor research project entitled 'Properties of Pure and Antimony-doped Zinc Selenide thin films' which was funded by Univ. of Mumbai (Rs. 41,000/-) in the academic year 2015-16.

#### **MEMBERSHIPS/AFFILIATIONS:**

- Life Member of Indian Physics Association (IPA)

#### **AWARDS AND ACHIEVEMENTS:**





## **FACULTY PROFILE**

- National Merit Scholarship to complete Master's Program
- Best Oral Paper Presentation Award at R.S. Mahavidyalaya, Latur, M.S., India.
- Best Research Publication Award for the academic year 2013-14 by IQAC, KBP College, Vashi.

### **ANY OTHER DETAILS:**

1. Successfully completed the Computer Course on 'Computer Operations' organized by Modern College, Vashi, Navi Mumbai from 7<sup>th</sup> Feb. 1994 to 8<sup>th</sup> Mar. 1994.
2. Successfully completed 'MS-CIT' on behalf of Govt. of Maharashtra in the month of Oct. 2003.
3. Worked as a Group leader for establishing Computer Laboratories & implementing computer education (Sanstha's Ambitious Project of Computer Education with the help of MKCL, Pune) in 39 schools of Sanstha in Raigad Region during 2007-2010.
4. Provided training as and when required to the Concerned Teachers of this project.
5. Worked as a Group leader for Rayat Vidnyan Parishad (Sanstha's Ambitious Project in collaboration with Homi Bhabha Centre for Science Education, TIFR, Mumbai) in 39 schools of Sanstha in Raigad Region during 2011-2013.