

# Teacher Profile



## 1. Personal Details

Name : Dr. Vasambekar Pramod Nivrutti  
Date of Birth : April 26, 1963  
Nationality : Indian  
Designation : Professor and Head  
Address : Department of Electronics, Shivaji University, Vidyanagar,  
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## 2. Academic Details

Degree	Class	Board/University	Year
B.Sc. Physics (Chem., Maths., Stats.)	First	Shivaji University, Kolhapur	1984
M.Sc. Physics (Sp.Electronics)	First	Shivaji University, Kolhapur	1986
Ph.D. Physics	-	Shivaji University, Kolhapur	1995

Title : A study of electrical and magnetic behaviour of chromium ( $\text{Cr}^{3+}$ ) substituted Cd-Co ferrite system

## 3. Research Specialization :

- Ferrites, Sensors, Microwaves, Antennas

## 4. Teaching Experience

- UG - 02 Year
- PG - 26 Year

## 5. Research Guidance

Program	Working	Awarded
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## 6. Research Publications

- In National/International Journals 49
- In National /International Conference Proceedings 25
- Papers Presented at International Conferences 15
- Papers Presented at National Conferences 14
- Papers Presented at National Seminars 08
- Papers Presented at State level 02

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### Papers Published in National/International Journals

1. A.S.Vaingankar, P.N.Kamble and V.R.Kulkarni, "Electrical switching in mixed  $\text{Cd}_x\text{Cu}_{1-x}\text{Fe}_2\text{O}_4$  system," *Ind. J. Pure and Appl. Phys.*, vol. 28, pp. 508-511, Sept. 1990
2. P.N.Kamble, A.S.Vaingankar and V.R.Kulkarni, "Structural and magnetic studies on slow cooled and quenched  $\text{Cd}_x\text{Cu}_{1-x}\text{Fe}_2\text{O}_4$  system," *Ind. J. Pure and Appl. Phys.*, vol. 28 pp. 542-545, Sept. 1990
3. C.B.Kolekar, P.N.Kamble and A.S.Vaingankar, "Structural and dc electrical resistivity study of

- substituted Cu-Cd mixed ferrites,” *J. Magnetism Magn. Mater.*, Vol. 38, pp. 211-215, 1994
4. C.B.Kolekar, P.N.Kamble and A.S.Vaingankar, “X-ray far IR characterisation and susceptibility study of Gd<sup>3+</sup> substituted copper cadmium ferrites,” *Ind. J. Phys.*, vol. 86 A (6), pp. 529-537, 1994
  5. C.B.Kolekar, P.N.Kamble and A.S.Vaingankar, “Thermoelectric power in Gd<sup>3+</sup> substituted Cu-Cd ferrites,” *Bull. Mater. Sci.*, vol.18, no. 2, pp.133-140, April 1995
  6. C.B.Kolekar, P.N.Kamble, S.G.Kulkarni and A.S.Vaingankar, “Effect of Gd<sup>3+</sup> substitution on dielectric behaviour of copper cadmium ferrites,” *J. Mater. Sci.*, vol. 30, pp. 5784-5788, 1995
  7. P.N.Vasambekar, C.B.Kolekar and A.S.Vaingankar, “Cation distribution and susceptibility study of Cd-Co and Cr<sup>3+</sup> substituted Cd-Co ferrites,” *J. Magnetism Magn. Mater.* Vol. 186 pp. 333-341, 1998
  8. P.N.Vasambekar, C.B.Kolekar and A.S.Vaingankar, “Electrical Switching in Cd<sub>x</sub>Co<sub>1-x</sub>Fe<sub>2-y</sub>Cr<sub>y</sub>O<sub>4</sub> system,” *Mater. Res. Bull.*, vol. 34, No.6, pp. 863-868, 1999
  9. P.N.Vasambekar, C.B.Kolekar and A.S.Vaingankar, “Magnetic behaviour of Cd<sup>2+</sup> and Cr<sup>3+</sup> substituted cobalt ferrites,” *Materials Chemistry and Physics*, vol. 60, pp. 282-285, 1999
  10. P.N.Vasambekar, C.B.Kolekar and A.S.Vaingankar, “Crystallographic and dc electrical resistivity study of Cd-Co and Cr<sup>3+</sup> substituted Cd-Co ferrites,” *Journal of Materials Science: Materials in Electronics*, vol. 10, pp. 667-671, 1999
  11. B.P.Ladgaonkar, P.N.Vasambekar and A.S.Vaingankar, “Microprocessor Based Temperature Controller by Linearization of Thermistor Characteristics,” *J. Instrum. Soc. India*, vol. 30 (4), pp. 267-270, 2000
  12. BP Ladgaonkar, PN Vasambekar, AS Vaingankar, “Effect of Zn<sup>2+</sup> and Nd<sup>3+</sup> substitution on magnetisation and AC susceptibility of Mg ferrite,” *J. Magnetism Magn. Mater.*, 210 (1), pp.289-294, 2000
  13. BP Ladgaonkar, PN Vasambekar, AS Vaingankar, “Structural and DC electrical resistivity study of Nd<sup>3+</sup> substituted Zn-Mg ferrites,” *Journal of materials science letters*, 19 (15), 1375-1377 2000
  14. BP Ladgaonkar, PN Vasambekar, AS Vaingankar, “Influence of Nd<sup>3+</sup> substitution on thermoelectric power of Zn-Mg ferrite system,” *Bulletin of Materials Science* 23 (2), 87-90 2000
  15. BP Ladgaonkar, CB Kolekar, PN Vasambekar, AS Vaingankar, “AC electrical conductivity study of Nd<sup>3+</sup> substituted Zn-Mg ferrite system,” *Indian Journal of Engineering and Materials Sciences* 7 (5/6), 419-421, 2000
  16. BP Ladgaonkar, PN Vasambekar, AS Vaingankar, “Cation Distribution and Magnetisation Study of Nd Substituted Zn-Mg Ferrites,” *Turk. J. Phys* 25, 129-135 2001
  17. P.N.Vasambekar, C.B.Kolekar, A.S.Vaingankar, “X-ray Diffraction Data on Cd<sub>x</sub>Co<sub>1-x</sub>Fe<sub>2-y</sub>Cr<sub>y</sub>O<sub>4</sub> System (x=0.50; y=0 and x=0.50; y=0.30),” 52-1798, 52-1799, *Powder Diffraction File Release-2002, International Centre for Diffraction Data, U.S.A.*, 2002.
  18. C.B.Kolekar, A.Y.Lipare, B.P.Ladgaonkar, P.N.Vasambekar and A.S.Vaingankar, “The effect of Gd<sup>3+</sup> and Cd<sup>2+</sup> substitution on magnetization of copper ferrite,” *J. Magnetism Magn. Mater.*, Vol. 247, pp. 142-146, 2002
  19. A.Y.Lipare, P.N.Vasambekar, A.S.Vaingankar, “Dielectric behavior and a.c. resistivity study of humidity sensing ferrites,” *Materials Chemistry and Physics*, vol. 81, pp. 108-115, 2003
  20. A.Y.Lipare, P.N.Vasambekar, A.S.Vaingankar, “X-ray, IR and dc electrical resistivity study of CaCl<sub>2</sub> doped zinc-copper ferrite system,” *Physica Status Solidi (A) Applied Research*, vol. 196 (2), pp. 373-378, 2003
  21. AY Lipare, PN Vasambekar, AS Vaingankar, “Ac susceptibility study of CaCl<sub>2</sub> doped copper-zinc ferrite system,” *Bulletin of Materials Science*, 26 (5), 493-497 2003 (ISSN 025-4707, 0.88,5)
  22. AY Lipare, PN Vasambekar, AS Vaingankar, “Effect of LiCl doping on dielectric behavior of copper-zinc ferrite system,” *J. Magnetism Magn. Mater.*, 279 (2), 160-172 2004
  23. R.M.More, T.J.Shinde, N.D.Choudhary and P.N.Vasambekar, “Effect of temperature on X-Ray, IR and magnetic properties of Nickel Ferrite prepared by oxalate co-precipitation method,” *Journal of Materials Science: Materials in Electronics*, vol. 16, pp. 721-724, 2005.

24. S.A. Masti, A.K. Sharma, P.N. Vasambekar and A. S. Vaingankar, "Influence of Cd<sup>2+</sup> and Cr<sup>3+</sup> substitutions on magnetization and permeability of magnesium ferrites," *J. Magnetism Magn. Mater.*, vol. 305, pp. 436-439, 2006.
25. PP Hankare, PD Kamble, MR Kadam, KS Rane, PN Vasambekar, "Effect of sintering temperature on the properties of Cu-Co ferrites prepared by oxalate precipitation method," *Materials Letters* 61 (13), 2769-2771 2007
26. T. J. Shinde, A. B. Gadkari, P. N. Vasambekar, "DC resistivity of Ni-Zn ferrites prepared by oxalate precipitation method," *Materials Chemistry and Physics*, vol.111 (1), pp. 87-91, Sept. 2008
27. A. B. Gadkari, T. J. Shinde and P. N.Vasambekar, "Structural analysis of Y<sup>3+</sup> doped Mg-Cd ferrites prepared by oxalate co-precipitation method," *Materials Chemistry and Physics*, vol. 114 (2-3), pp. 505-510, April 2009
28. A. B. Gadkari, T. J. Shinde and P. N.Vasambekar, "Structural analysis of Sm<sup>3+</sup> added nanocrystalline Mg-Cd ferrites prepared by oxalate co-precipitation method," *Materials Characterization*, vol.60 (11), pp.1328-1333, Nov. 2009
29. A. B. Gadkari, T. J. Shinde and P. N.Vasambekar, "Structural and magnetic properties of nanocrystalline Mg-Cd ferrites prepared by oxalate co-precipitation method," *Journal of Materials Science: Materials in Electronics*, vol 21 (1), pp.96-103, Jan. 2010
30. T. J. Shinde, A. B. Gadkari, and P. N.Vasambekar, "Saturation Magnetization and structural analysis of Ni<sub>0.6</sub>Zn<sub>0.4</sub>Nd<sub>y</sub>Fe<sub>2-y</sub>O<sub>4</sub> by XRD, IR and SEM techniques," *J. Mater Sci: Mater Electron*, 21 (2), p. 120 – 124, Feb. 2010
31. A. B. Gadkari, T. J. Shinde and P. N.Vasambekar, "Influence of rare earth ions on structural and magnetic properties of CdFe<sub>2</sub>O<sub>4</sub> ferrites", *Rare Metals*, vol. 29 (2), pp168-173, April 2010
32. T. J. Shinde, A. B. Gadkari, P. N.Vasambekar, "Effect of Nd<sup>3+</sup> substitution on structural and electrical properties of nanocrystalline zinc ferrite", *J. Magnetism Magn. Mater.*, 322 (18), pp.2777-2781, Sept.2010
33. A. B. Gadkari, T. J. Shinde and P. N.Vasambekar, "Magnetic properties of rare earth ion (Sm<sup>3+</sup>) added nanocrystalline Mg-Cd ferrites prepared by oxalate co-precipitation method", *J. Magnetism Magn. Mater.*, vol 322(24), pp.3823-3827, Dec.2010
34. Y. B. Thakare, P. S. Wankhade, P. N. Vasambekar, S. N. Talbar and M. D. Upalane, "Design of iterative circular shaped fractal antenna and its backscattering investigation", *International Journal of Microwave and Optical Technology*, vol. 6, no.1, pp. 29-35, Jan. 2011
35. A. B. Gadkari, T. J. Shinde and P. N.Vasambekar, "Synthesis, characterization and magnetic properties of La<sup>3+</sup> added Mg-Cd ferrites prepared by oxalate co-precipitation method", *Journal of Alloys and Compounds*, vol. 509 (3), pp.966-972, Jan, 2011
36. A. B. Gadkari, T. J. Shinde and P. N. Vasambekar, "Ferrite gas sensors," *IEEE Sensors Journal*, vol. 11(4), pp.849-861, April 2011
37. T. J. Shinde, A. B. Gadkari, P. N.Vasambekar, "Influence of Nd<sup>3+</sup> substitution on structural, electrical and magnetic properties of nanocrystalline nickel ferrites", *Journal of Alloys and Compounds*, vol.513 (2), pp.80-85, Feb. 2012
38. A.B.Gadkari, T.J.Shinde and P.N.Vasambekar, "Electrical and Humidity Sensing Study of Nanocrystalline Mg-Cd Ferrites," *Sensors & Transducers Journal* Vol. 137 (2), pp. 145-154, February 2012
39. T. J.Shinde, A. B. Gadkari, P. N.Vasambekar, "Structural and dielectric properties of nanocrystalline Nd<sup>3+</sup> substituted nickel-zinc ferrites", *J Mater Sci: Mater Electron*, 23(3) p.697-705, March 2012
40. A.B.Gadkari, T.J.Shinde and P.N.Vasambekar, "Y<sup>3+</sup> doped nanocrystalline Mg-Cd Ferrite LPG, Cl<sub>2</sub> and C<sub>2</sub>H<sub>5</sub>OH Sensors", *Sensors & Transducers Journal*, Vol. 146, (11), pp. 110-120, November 2012
41. T. J. Shinde, A. B. Gadkari, P. N. Vasambekar, "Magnetic properties and cation distribution study of nanocrystalline Ni-Zn ferrites", *J. Magnetism Magn. Mater.*, 333 pp.152-155, May 2013
42. T. J. Shinde, A. B. Gadkari, P. N. Vasambekar, "Dielectric behavior of nanocrystalline Ni-Zn ferrites prepared by oxalate co-precipitation method", *Advanced Materials Research* 645, pp.56-

- 59, 2013
43. Ashok B. Gadkari, Tukaram J. Shinde, Promod N. Vasambekar, "Influence of rare earth ion ( $Y^{3+}$ ) on the magnetic and dc electrical properties of high density nanocrystalline Mg–Cd ferrites", *Materials Research Bulletin* 48 (2), p.476–481, Feb.2013
  44. Ashok B. Gadkari, Tukaram J. Shinde, Pramod N. Vasambekar, "Effect of  $Sm^{3+}$  ion addition on gas sensing properties of  $Mg_{1-x}Cd_xFe_2O_4$  system", *Sensors and Actuators B: Chemical*, 178 (1), p.34–39, March 1, 2013
  45. Kumar S., Shinde T.J., Vasambekar P.N., "Microwave synthesis and characterization of Nanocrystalline Mn-Zn ferrites", *Advanced Materials Letters*, 4. (5), pp.373-377, 2013
  46. Ashok B. Gadkari, Tukaram J. Shinde, Pramod N. Vasambekar, "Liquid Petroleum Gas Sensor Based on Nanocrystallite  $Mg_{0.6}Cd_{0.4}Fe_2O_4$ ", *Advanced Materials Letters*, 4. (7), pp.573-576, July 2013 (ISSN 0976-396, 1.02 on Google)
  47. S.P.Dalawai, T. J. Shinde, A. B. Gadkari, P. N. Vasambekar, "Effect of Sintering Temperature on Structural and Electrical Switching Properties of Cadmium Ferrite", *Advanced Materials Letters*, 4. (7), pp.586-590, July 2013 (ISSN 0976-396, 1.02 on Google)
  48. S.P.Dalawai, T. J. Shinde, A. B. Gadkari, P. N. Vasambekar, "Structural properties of Cd-Co ferrites", *Bulletin of Materials Science*, vol.36, no.5, pp.919-922, Oct.2013 (ISSN 0250-4707 0.584).
  49. S.P.Dalawai, A.B.Gadkari and P.N.Vasambekar, "Electrical switching in cadmium ferrite with different rare earth ion ( $Sm^{3+}$ ,  $Y^{3+}$  and  $La^{3+}$ ) on", *Rare Metals*, p.1-4, March 2014 (ISSN 1867-7185, 0.93)

#### Papers Published in National/International Conferences Proceedings

1. B.P.Ladgaonkar, P.N.Vasambekar and A.S.Vaingankar, "Cation distribution investigation by structural refinement for Nd substituted Zn-Mg ferrites," Proceedings of National Conference on Electronic Materials, Devices and Systems, Department of PG studies and Research in Applied Electronics, Gulbarga University, Gulbarga, pp.187-192, Jan18-20 1999
2. B.P.Ladgaonkar, P.N.Vasambekar, and A.S.Vaingankar, "Initial Permeability studies of  $Nd^{3+}$  substituted Zn-Mg ferrite system," Proceedings of DAE-BRNS National Symposium on Recent Trends in Electro and Magnetoceramics, Department of Physics, Shivaji University, Kolhapur, pp.67-69, Feb. 18-20 1999.
3. P.N.Vasambekar, C.B.Kolekar, B.P.Ladgaonkar and A.S.Vaingankar, "Dielectric behaviour of Cd-Co and  $Cr^{3+}$  substituted Cd-Co ferrites," Proceedings of DAE-BRNS National Symposium on Recent Trends in Electro and Magnetoceramics, Department of Physics, Shivaji University, Kolhapur, pp.67-73, Feb. 18-20 1999.
4. A.Y.Lipare, B.P.Ladgaonkar, S.G.Kulkarni, P.N.Vasambekar and A.S.Vaingankar, "Humidity sensing using doped Cu-Zn ferrites" Proceedings of the DAE Solid State Physics Symposium, Indira Gandhi Centre for atomic Research, Kalpakkam, pp.227-228, vol.42, Dec.20-24, 1999
5. C.B.Kolekar, B.P.Ladgaonkar, P.N.Vasambekar and A.S.Vaingankar, "Cation distribution from Curie Temperature measurements for  $Gd^{3+}$  substituted Cd-Cu ferrite system" Proceedings of the DAE Solid State Physics Symposium, Indira Gandhi Centre for atomic Research, Kalpakkam, pp.552-553, vol.42, Dec.20-24, 1999
6. T.J.Shinde, B.P.Ladgaonkar, B.J.Nalawade, M.A.Anuse, P.N.Vasambekar and A.S.Vaingankar, "Preparation and characterization of zinc substituted nickel ferrites" Proceedings of the DAE Solid State Physics Symposium, Indira Gandhi Centre for atomic Research, Kalpakkam, pp.575-576, vol.42, Dec.20-24, 1999
7. B.P.Ladgaonkar, P.N.Vasambekar and A.S.Vaingankar, "Cation distribution study of  $Nd^{3+}$  substituted Zn-Mg spinel ferrites by structural refinement method," presented at the Birth Centenary celebration of Prof. K.S.Krishnan Symposium on condensed matter Physics (SCMP-99), Indian Association for the Cultivation of Science, Jadavpur, Calcutta, Dec. 4-6 1999 *Indian Journal of Physics*, vol.75A no. 4 July 2001

8. A.B.Gadkari, T.J.Shinde and P.N.Vasambekar, "Effect of rare-earth ions on structural and electrical properties of  $\text{MgFe}_2\text{O}_4$  prepared by oxalate co-precipitation method", Proceedings of the 54<sup>th</sup> DAE Solid State Physics Symposium, The Maharaja Sayajirao University of Baroda, Vadodara, December 14 – 18, 2009, vol.54 pp.1099-1100 Dec 2009
9. P.N.Vasambekar, A. B. Gadkari and T.J. Shinde, , "Structural and DC electrical resistivity of  $\text{Sm}^{3+}$  added nanocrystalline cadmium ferrite", Proceedings of the 54<sup>th</sup> DAE Solid State Physics Symposium, The Maharaja Sayajirao University of Baroda, Vadodara, December 14 – 18, 2009, vol.54 pp.1081-1082, Dec 2009
10. P.P.Halkarnikar, H.P.Khandagle, S.N.Talbar, P.N.Vasambekar, "Object Detection under Noisy Condition", Proceedings of International conference on Methods and Models in Science and Technology (ICM2ST-10) Ed. R.B.Patel and B.P.Singh, American Institute of Physics (AIP), 1324 (1), 288, 2010
11. R.V.Kulkarni and P. N. Vasambekar, " An Overview of Segmentation Techniques for Handwritten Connected Digits", International Conference on Signal and Image Processing (ICSIP-2010), RMD Engineering College, Chennai, December 15-17, 2010 Proceedings pp.479-482, 2010
12. T.J.Shinde, A.B.Gadkari, P.N.Vasambekar, "Dielectric behavior of  $\text{Nd}^{3+}$  substituted nickel ferrites", AIP Conference Proceedings, vol.55(1349), pp.255-256, July 2011, Manipal University, Manipal, Dec.26-30, 2010
13. P.N.Vasambekar, T.J.Shinde, A.B.Gadkari, "Structural Properties of Nanocrystalline  $\text{Nd}^{3+}$  Substituted Nickel Ferrites", AIP Conference Proceedings, vol.55(1349), pp.353-354, July 2011, Manipal University, Manipal, Dec.26-30, 2010
14. Ashok B.Gadkari, Tukaram J.Shinde and Pramod N.Vasambekar, " $\text{Sm}^{3+}$  Added Nanocrystalline Mg Ferrite LPG and  $\text{Cl}_2$  Sensor" Proceedings of National Seminar on Advances in VLSI Design and Technology (NSAVDT-2011), Department of Electronics, Shankarroao Mohite Mahavidyalaya Akluj, December 19-20, 2011, *Journal of Science* pp.78-83 2012
15. T.D.Dongale, N.A.Chougale, S.K.Magdum, S.D.Patel, P.N.Vasambekar, "Design and Development of UHF Moxon Antenna", Proceedings of National Seminar on Advances in VLSI Design and Technology (NSAVDT-2011), Department of Electronics, Shankarroao Mohite Mahavidyalaya Akluj, December 19-20, 2011, pp.93-96 2012
16. Ashok B.Gadkari, Tukaram J.Shinde and Pramod N.Vasambekar, "Nanocrystalline Mg ferrite LPG,  $\text{Cl}_2$  and  $\text{C}_2\text{H}_5\text{OH}$  sensor", Conference Proceedings of 56<sup>th</sup> DAE Solid State Physics Symposium, SRM University, Kattankulathur, Tamilnadu, Dec.19-23, 2011 vol.56 (1447), pp.415-416, June 2012
17. Tukaram J. Shinde, Ashok B. Gadkari, Pramod N.Vasambekar, "Dielectric behavior of nanocrystalline Ni-Zn ferrites prepared by oxalate co-precipitation method", *Second International Conference on Intelligent Systems and Advanced Materials (GSAM-2013), Taiyuan, China, Jan.13-15, 2013, Advanced Materials Research*, vol. 645, pp. 56-59, 2013
18. Ashok B. Gadkari, Tukaram J. Shinde and Pramod N.Vasambekar, "Role of  $\text{Sm}^{3+}$  addition on humidity sensing of nanocrystalline Mg-Cd ferrites", *Second International Conference on Intelligent Systems and Advanced Materials (GSAM-2013), Taiyuan, China, Jan.13-15, 2013, Advanced Materials Research* vol. 645, pp 160-163, 2013
19. Pramod N. Vasambekar, Tukaram J. Shinde, Ashok B. Gadkari, " $\text{Nd}^{3+}$  substituted nanocrystalline zinc ferrite sensors for ethanol, LPG and Chlorine", *Second International Conference on Intelligent Systems and Advanced Materials (GSAM-2013), Taiyuan, China, Jan.13-15, 2013, Applied Mechanics and Materials*, vol. 310, pp. 150-153, 2013
20. Surender Kumar, Tukaram J. Shinde and Pramod N. Vasambekar, "Microwave synthesis and magnetic properties of Indium substituted Mn-Zn Ferrites", *International Conference on Recent Trends in Applied Physics and Material Science*, Govt. College of Engineering and Technology, Bikaner-334004, Rajasthan, Feb. 01-02, 2013, AIP.
21. S.P.Dalawai, A. B. Gadkari, T. J. Shinde, , P. N. Vasambekar, "Room Temperature  $\text{Ni}_{0.8}\text{Zn}_{0.2}\text{Fe}_2\text{O}_4$  Thick Film Chlorine Sensor", *International Journal of Chemitech Research* vol.6.No.3 p.2023-2025 May June 2014 (ISSN 0974-4290).

22. Ashok B. Gadkari, Tukaram J. Shinde and Pramod N.Vasambekar, "Humidity Sensor Based on Rare Earth ion ( $Y^{3+}$ ) Added Nanocrystalline Mg-Cd Ferrites", *Proceedings of International Conference on Advanced and Applied Material Science (ICCAAMS-2014)*, Gopal Krishna Gokhale College, Kolhapur, p.15-18, Jan.15-16, 2014 (ISBN 978-81-928717-0-7)
23. Tukaram J. Shinde, Ashok B. Gadkari and Pramod N.Vasambekar, "Preparation and Characterization of  $La^{3+}$  Substituted Ni-Zn Ferrites", *Proceedings of International Conference on Advanced and Applied Material Science (ICCAAMS-2014)*, Gopal Krishna Gokhale College, Kolhapur, p.15-18, Jan.15-16, 2014 (ISBN 978-81-928717-0-7)
24. Surender Kumar, Tukaram J. Shinde and Pramod N.Vasambekar, "Dielectric properties of  $In^{3+}$  Substituted Mn-Zn Nano-ferrites Prepared by Oxalate Coprecipitation Technique", *Proceedings of International Conference on Advanced and Applied Material Science (ICCAAMS-2014)*, Gopal Krishna Gokhale College, Kolhapur, p.88-91, Jan.15-16, 2014 (ISBN 978-81-928717-0-7)
25. Sanjeev P.Dalawai, Ashok B. Gadkari, Tukaram J. Shinde and Pramod N.Vasambekar, "Electrical Switching Properties of  $Cr^{3+}$  Substituted Cadmium Ferrite", *Proceedings of International Conference on Advanced and Applied Material Science (ICCAAMS-2014)*, Gopal Krishna Gokhale College, Kolhapur, p.161-165, Jan.15-16, 2014 (ISBN 978-81-928717-0-7)

#### Papers Presented at International Conferences

1. A.B. Gadkari, T.J. Shinde and P.N. Vasambekar, "Preparation of  $La_2O_3$  added Mg-Cd Ferrites by oxalate co-precipitation method and their characterization," presented at the International Conference on Advanced Materials and Applications (ICAMA-2007), Department of Physics, Shivaji University, Kolhapur, November 15-17 2007.
2. R. M. More, N. D. Chaudhari and P. N. Vasambekar, "Electrical resistivity and thermo electric power of Ni-Cd and  $Gd^{3+}$  substituted Ni-Cd ferrites," presented at the International Conference on Advanced Materials and Applications (ICAMA-2007), Department of Physics, Shivaji University, Kolhapur, November 15-17 2007.
3. T.J. Shinde, A.B. Gadkari and P.N. Vasambekar, "Synthesis and characterization of  $Nd^{3+}$  substituted Nickel ferrites," presented at the International Conference on Advanced Materials, School of Chemical Science, Mahatma Gandhi University, Kottayam, Feb. 18-21 2008.
4. A. B. Gadkari, T.J. Shinde, P. N. Vasambekar, "Structural properties of rare earth ions added nanocrystalline  $CdFe_2O_4$  prepared by oxalate co-precipitation method," presented at the International Conference on Nanomaterials and Applications (ICNAMA-2008), Department of Chemistry and Department of Physics, Shivaji University, Kolhapur, December 9-11, 2008.
5. T. J. Shinde, A. B. Gadkari, P. N. Vasambekar, "Synthesis and structural analysis of nanocrystalline  $Nd^{3+}$  substituted zinc ferrites," presented at the International Conference on Nanomaterials and Applications (ICNAMA-2008), Department of Chemistry and Department of Physics, Shivaji University, Kolhapur, December 9-11, 2008.
6. M.K. Bhanarkar, C.K. Nanhey, P.N. Vasambekar and V.V. Navarkhele, "Dielectric studies of formamide with ethylene and propylene glycol using FDR technique at X-band," presented at the International Conference on Nanomaterials and Applications (ICNAMA-2008), Department of Chemistry and Department of Physics, Shivaji University, Kolhapur, December 9-11, 2008.
7. S.A. Masti, A.K. Sharma, P.N. Vasambekar and A.S. Vaingankar, "Behavior of dielectric constant and dielectric loss tangent in  $Cd^{2+}$  and  $Cr^{3+}$  substituted Magnesium ferrites", presented at the International Conference on Nanomaterials and Applications (ICNAMA-2008), Department of Chemistry and Department of Physics, Shivaji University, Kolhapur, December 9-11, 2008.
8. A. B. Gadkari, T.J. Shinde, P. N. Vasambekar, "DC Electrical Resistivity and Curie Temperature study of Nanocrystalline Mg-Cd Ferrites", presented at International Conference on Materials for Advanced Technologies 2009 (ICMAT-2009), Singapore, June 28 – July 03, 2009
9. T.J. Shinde, A. B. Gadkari and P. N. Vasambekar, "Sensing Properties of Nanocrystalline

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- Nickel Ferrite”, presented at International Conference on Nanomaterials and Nanotechnology, University of Delhi, December 18 –21, 2011
10. A.B.Gadkari, T.J.Shinde and P.N.Vasambekar, “Nanocrystallite  $Mg_{0.6}Cd_{0.4}Fe_2O_4$  as a LPG Sensor”, presented at International Conference on Nanomaterials and Nanotechnology, University of Delhi, December 18 –21, 2011
  11. S.P.Dalwai, P.M.Borade, T.J.Shinde, A. B. Gadkari and P. N. Vasambekar, “Effect of Sintering Temperature on Structural and Elcectrical Switching Properties of Cadmium Ferrite”, presented at International Conference on Nanomaterials and Nanotechnology, University of Delhi, December 18 –21, 2011
  12. A.B.Gadkari, T.J.Shinde and P.N.Vasambekar, “Nanocrystallite Cadmium Ferrite as  $C_2H_5OH$  sensor”, presented at First International Conference on Physics of Materials and Materials Based Device Fabrication (ICPM-MDF-2012) Department of Physics, Shivaji University, Kolhapur, January 17-19, 2012
  13. T.J.Shinde, A. B. Gadkari and P. N.Vasambekar, “Effect of  $Nd^{3+}$  Substiturion on Gas Sensing Behavior of Nanocrystalline Zinc Ferrite”, presented at First International Conference on Physics of Materials and Materials Based Device Fabrication (ICPM-MDF-2012) Department of Physics, Shivaji University, Kolhapur, January 17-19, 2012
  14. S.P.Dalwai, T.J.Shinde, A. B. Gadkari and P. N.Vasambekar, “Structural and Electrical Switching Propertiers of  $Cr^{3+}$  Substituted Cd-Co Ferrites”, presented at First International Conference on Physics of Materials and Materials Based Device Fabrication (ICPM-MDF-2012) Department of Physics, Shivaji University, Kolhapur, January 17-19, 2012
  14. Y. B. Thakare , P. S. Wankhede, P. N. Vasambekar, S. N. Talbar, M. D. Uplane, “Super wideband fractal antenna for wireless communication”, accepted for oral presentation and publication, IEEE International Conference on Wireless Information Technology and Systems (ICWITS), Maui, Hawaii, USA, Nov.11-16, 2012.
  15. P.P.Halkarnikar, S.N.Talbar, P.N.Vasambekar, “Object Separation in shadow clutter in video sequences”, International Conference on Radar, Communication and Computing, ICRC 2012 art no.6450599 pp.299302
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#### Papers Presented at National Conferences

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1. P.N.Kamble, C.B.Kolekar, S.G.Kulkarni and A.S.Vaingankar, “Microstructure study in  $Cd_xCo_{1-x}Fe_2O_4$  system,” presented at the National Conference on Oxide Ceramics and Technology, Shivaji University, Kolhapur, 21-23 Feb. 1991.
  2. C.B.Kolekar, P.N.Kamble, S.G.Kulkarni and A.S.Vaingankar, “Structural and Electrical Studies on doped and undoped  $Zn_xMg_{1-x}Fe_2O_4$  system,“ presented at the National Conference on Oxide Ceramics and Technology, Shivaji University, Kolhapur, 21-23 Feb. 1991.
  3. C.B.Kolekar, P.N.Kamble and A.S.Vaingankar, “Structural and Magnetic studies of doped and undoped  $Zn_xMg_{1-x}Fe_2O_4$  ferrite system,” presented at the National Conference on Oxide Ceramics and Technology, Shivaji University, Kolhapur, 21-23 Feb. 1991.
  4. S.G.Kulkarni, C.B.Kolekar, P.N.Kamble and A.S.Vaingankar, “Development of humidity sensor using soft ferrites,” presented at the National Conference on Oxide Ceramics and Technology, Shivaji University, Kolhapur, 21-23 Feb. 1991.
  5. P.N.Kamble, C.B.Kolekar and A.S.Vaingankar, “X-ray diffraction and far IR absorption study of  $Cd_xCo_{1-x}Fe_{2-y}Cr_yO_4$  system,” presented at the National Conference on Developments in Electronic Materials and their applications, Shivaji University, Kolhapur, 6-8 March 1995.
  6. P.N.Kamble, C.B.Kolekar and A.S.Vaingankar, “Microstructural study of  $Cd_xCo_{1-x}Fe_{2-y}Cr_yO_4$  system,” presented at the National Conference on Developments in Electronic Materials and their applications, Shivaji University, Kolhapur, 6-8 March 1995.
  7. C.B.Kolekar, P.N.Kamble and A.S.Vaingankar, “Effect of  $Gd^{3+}$  substitution on dielectric behavior of Cu-Cd Ferrites”, presented at the National Conference on Developments in Electronic Materials and their applications, Shivaji University, Kolhapur, 6-8 March 1995.
  8. C.B.Kolekar, P.N.Kamble and A.S.Vaingankar, “Cation distribution in  $Gd^{3+}$  substituted Cu-Cd

- ferrite system,” presented at the National Conference on Development in Electronic Materials and their applications, Shivaji University, Kolhapur, 6-8 March 1995.
9. B.R.Karche, P.N.Kamble, A.S.Vaingankar and B.V.Khasbardar, “Structural characterization of Al<sup>3+</sup> substituted copper cobalt ferrites,” presented at the National Conference on Development in Electronic Materials and their applications, Shivaji University, Kolhapur, 6-8 March 1995.
  10. R. M. More, N. D. Choudhary, P. N. Vasambekar, “Dielectric behavior of Ni-Cd and Gd<sup>3+</sup> substituted Ni-Cd ferrites prepared by oxalate co-precipitation method,” presented at the National Conference on Current Trends in Materials Research for Advanced Technology (NCMRAT – 2007) Department of Physics, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad January 29-31 2007.
  11. K.S.Oza, V.S.Kumbhar, P. N. Vasambekar, “Result Analysis : A Data Mining Approach” Interdisciplinary National Conference on Information and Communication Technology for Education (ICTE-2013), Department of Education and Department of Electronics, Shivaji University, Kolhapur, March 04-05, p.80 2013, (Chaired Session)
  12. S.R.Bhongale, P. N. Vasambekar, “Design of Rectangular Micro-strip Patch Antenna at 2.45 GHz using FR4 Substrate” National Conference on Latest Advances, Trends in Electronic Science and Technology (LATEST-2014), Department of Electronics, Shivaji University, Kolhapur and Department of Electronics Engineering, KIT’s College of Engineering, Kolhapur, Feb 14-15, p.48 2014.
  13. A.A.Mulla, Z.A.Mulla, P. N. Vasambekar, “Microcontroller Based Azimuth Axis Positioning System for Receiving Antenna” National Conference on Latest Advances, Trends in Electronic Science and Technology (LATEST-2014), Department of Electronics, Shivaji University, Kolhapur and Department of Electronics Engineering, KIT’s College of Engineering, Kolhapur, Feb 14-15, p.62 2014.
  14. H.R.Ingavale, P. N. Vasambekar, “Rectangular Microstrip Patch Antenna Using Stripline feeding technique for Satellite Communication” National Conference on Latest Advances, Trends in Electronic Science and Technology (LATEST-2014), Department of Electronics, Shivaji University, Kolhapur and Department of Electronics Engineering, KIT’s College of Engineering, Kolhapur, Feb 14-15, p.88 2014.

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#### Papers Presented at National Seminars

1. T.J. Shinde, B.P.Ladgaonkar, P.N.Vasambekar and A.S.Vaingankar, “Electrical and Magnetic behavior of Ni-Zn ferrites prepared by oxalate co-precipitation Method,” presented at the National Seminar on Recent Trends in Materials Science (NSRTMS-99), Department of Physics, Sri Venkateswara University, Tirupati, Nov. 25-27 1999.
2. S.A.Masti, R.M.More, A.Y.Lipare, A.K.Sharma, A.S.Vaingankar and P.N.Vasambekar, “DC Electrical Resistivity of Cu-Zn Ferrite Prepared by Oxalate Precipitation Method,” presented at the National Seminar on Electro and Magneto Ceramics, Devices and Systems, Shankarrao Mohite Mahavidyala Akluj, October 21-23 2002.
3. S.A.Masti, A.K.Sharma, P.N.Vasambekar, “Estimation of cation distribution in Cd<sup>2+</sup> and Cr<sup>3+</sup> substituted magnesium ferrites,” presented at the National Seminar Materials for Advanced Technology, Department of Physics, Shivaji University, Kolhapur January 23-25 2006.
4. A.B. Gadakari, T.J. Shinde, P.N. Vasambekar, “Preparation of Sm<sub>2</sub>O<sub>3</sub> added Mg-Cd ferrites by oxalate co-precipitation method and their characterization,” presented at the National Seminar on Recent Advances in Sensors and Instrumentation (NSRASI – 07), Department of Electronics Shankarrao Mohite Mahavidyalaya Akluj, October 15-16 2007.
5. S.S.Shaikh, A.J.Jamadar, A.S.Koli, P.N.Vasambekar and B.P.Ladgaonkar, “Tracking of radiation pattern of antenna by using microcontroller”, presented at the National Seminar on



Recent Advances in Sensors and Instrumentation (NSRASI – 07), Department of Electronics Shankarroao Mohite Mahavidyalaya Akhuj, October 15-16 2007.

6. A. B. Gadkari, T.J. Shinde and P. N. Vasambekar, "Coprecipitation synthesis of magnesium nano particles for gas sensing at room temperature", presented at the National Seminar on Advanced Materials (NSAM-2010), Department of Physics, Shivaji University, Kolhapur, 19-20 March, 2010
7. T. J. Shinde, A. B. Gadkari, P. N. Vasambekar, "Gas Sensing Behavior of Nd<sup>3+</sup> substituted nanocrystalline zinc ferrite", presented at the National Seminar on Advanced Materials (NSAM-2010), Department of Physics, Shivaji University, Kolhapur, 19-20 March, 2010
8. S.P.Dalwai, T.J.Shinde, A. B. Gadkari and P. N. Vasambekar, "TG-DTA, IR and SEM Study of Cd-Co Ferrites", presented at National Seminar on Physics of Material and Materials based Device Fabrication (NSPM-MDF-2011) Department of Physics, Shivaji University, Kolhapur, February 17 – 18, 2011

#### Papers presented at AGM-MRSI and State level Project

1. R.M.More, N.D.Chaudhary, P.N.Vasambekar, "Saturation Magnetization and Curie Temperature of Ni-Cd and Gd<sup>3+</sup> substituted Ni-Cd ferrites prepared by oxalate co-precipitation method," presented at the 17<sup>th</sup> AGM on Bio, Biomedical and natural materials Organized by MRSI, Lucknow University, Lucknow February 13-15 2006.
2. S.M. Dalavi, S.M. Lambe, A.G. Shinde and P.N. Vasambekar, "GSM based antitheft security system," presented at the State level M.Sc. project competition, Department of Electronic Science, Modern College, Pune, March 25 2008.

#### Books Published

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|------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1. C Application Programs and Projects, Dilip Mali and Pramod Vasambekar, <i>Penram International Publishing (India) Pvt.Ltd. ISBN 81-87972-24-6</i> | 2007 |
| 2. Illustrated Programming with C++, Dilip Mali and Pramod Vasambekar, <i>Penram International Publishing (India) Pvt. Ltd. ISBN 81-87972-30-0</i>   | 2009 |

#### 7. Conferences

	Attended	Papers Presented
• National	23	33
• International	04	23

#### 8. Research Project work

Title of Project / Scheme	Funding Agency	Amount (lakh)	Period	Status
1. Preparation and characterization of soft ferrites for electrical switching devices	UGC	8.90	01/05/2009-30/04/2012	Completed

#### 9. Membership / Other Charge

- Marathi Vigyan Parishad Life member
- Materials Research Society of India, MRSI Life member
- Computer Society of India, CSI Life Member
- National Institute of Amateur Radio, NIAR Life Member
- The Institution of Electronics and Telecommunication Engineers, IETE Life Member

#### Other Charge

- Rector, Boy's Hostel, Shivaji University, Kolhapur 2002-05
- Co-ordinator, Department of Comp. Science, Shivaji University, Kolhapur 2007-13
- Chairman, Ad-hoc Board of Comp. Science, Shivaji University, Kolhapur 2008-10
- Member, Senate, Shivaji University, Kolhapur 2010-13
- Head, Department of Electronics, Shivaji University, Kolhapur 2013-

#### 10. Honors/Rewards

- Award for Scientific Instrument, Balawant College, Vita, District- Sangli 1984
- Certificate for significant Contribution to `Powder Diffraction File – Release 2002', 2002  
International Centre for Diffraction Data, USA
- Honorary Appointment to the Research Board of Advisors, The American 2003  
Biographical Institute
- Fellow, The Institution of Electronics and Telecommunication Engineers, IETE 2013

#### 11. Fellowships / Post Doctoral -