



**Dr. Shrikrishna D. Sartale**

Associate Professor,  
Department of Physics,  
University of Pune,  
Pune – 411 007 India  
**Tel:** +91-20-25692678 (ext. 315)  
**Fax:** +91-20-25691684  
**Email:** [sdsartale@physics.unipune.ac.in](mailto:sdsartale@physics.unipune.ac.in)

**Personal details:**

- Date of birth: 19 April 1976
- Citizenship: Indian
- Marital status: Married

**Education:**

- **Ph.D.**, Feb. 2003, Major in Thin Film Physics, Shivaji University, Kolhapur, India
- **M.Sc.** Jun. 1998, Major in Physics - Applied Electronics, Shivaji University, Kolhapur, India

**Research Experience:**

- **NIMS research Fellow** (July 2007-April 2008) National Institute for Materials Science, Japan  
“Fabrication and investigation of MIM structure for nanoelectronics applications”
- **Post-doctorate Fellow** (July 2004-July 2007) National Central University, Taiwan  
“Growth of metal nanoclusters supported on oxide surface as a model catalyst”
- **Alexander von Humboldt Fellow** (July 2003-July 2004) Hahn-Meitner Institut, Germany  
“Chemical and electrochemical processes for solar cell applications”
- **Research Project Fellow** (June 2000-July 2001) Shivaji University, Kolhapur, India  
“Preparation and characterization of nanocrystalline group II-VI thin films”.

**Teaching Experience:**

- **Associate Professor** (April 2008 – till date), Dept. of Physics, University of Pune, Pune, India
- **Contributory lecturer** (Jan. 2002 - Mar. 2002) Shivaji university, Kolhapur, India  
Thin Film Physics

**Memberships:**

- All India Association of Doctor of Philosophy (Ph.D.)
- American Association for the Advancement of Science
- Research Board of Advisors of the American Biographical Institute.
- Institute of Physics, London, UK.
- NIMS Alumni, Japan

**Honors and Awards:**

- Japan Society for Promotion of Science Fellowship (2007)
- Selected and attended Noble Laureate Meeting, Lindau, Germany (2004)
- Alexander von Humboldt Fellowship, Germany (2003)

**Peer review:**

Materials Chemistry Physics, Thin Solid Films, Electrochemistry Communications, Electrochimica Acta, Journal of Electroceramics, Journal of Sulfur Chemistry, Materials Letters, Journal of Photochemistry and Photobiology A: Chemistry, Journal of Alloys and Compounds, etc..

**Research interest:**

Thin Film Science, Solar Cell, Heterogeneous Catalyst, Surface and interface science, Nano-science and technology, Fuel Cell, Tribology

## RESEARCH GUIDANCE

### Post-Doc.

Sr. No.	Name of the Student	Name of the Fellowship	Title of the work	Remark
1	Punam Annasaheb Jadhav	CSIR Senior research Fellow (SRF)	Chemically synthesized ferroelectric gas sensors	11/06/2009-13/08/2010

### Ph. D.

Sr. No.	Name of the Student	Title of the work	Remark
1	Ansari Abu Saad	Studies on spin coating of metal nanoparticles on flat support for catalytic applications	Working
2	Shreelekha Nitin Khatavkar	Liquid Phase Deposition of oxide thin films	Working
3	Sanjay Kokane	Nanocrystalline metal oxides for photocatalysis	Working

### M. Phil.

Sr. No.	Name of the Student	Title of the work	Remark
1	Ansari Abu Saad	Studies on sputter deposited titanium dioxide thin films	<b>Awarded</b>
2	Ashwini Baburao Roham	Growth of metal nanoparticles thin film by SILAR technique	<b>Awarded</b>
3	Smita M. Yadav	Chemical synthesis of nanocrystalline Ceria	Working
4	Akshay Nandkishor Vyas	SILAR deposition of MoS <sub>2</sub> thin films	Working
5	Swamini Zaware	Nanocrystalline metal thin films for catalytic applications	Working

## RESEARCH PROJECTS

Sr. No.	Title of the Project	Funding Agency	Duration	Amount (Rs.)	Remark
1	Studies on nanocrystalline ceria prepared by chemical method	BCUD, Univ. of Pune	2 Years	2, 00,000	Completed
2	Deposition of layered transition metal chalcogenides thin films by SILAR method for their tribological applications	ISRO-UoP Technology Cell, Univ. of Pune	2 Years	7, 00,000	Completed
3	Growth of metal nanoparticles on oxide thin film by spin-coating technique as a model catalyst	CSIR, India	3 Years	19,00,000	In progress
4	Studies on size dependent properties of mechanochemically synthesised ferrite nanoparticles	Fast Track Proposals for Young Scientists, DST, India	3 Years	27,00,000	Accepted
5	Understanding the growth mechanism of cadmium zinc sulfide thin films deposited by novel chemical bath deposition method	UGC, India	3 years	13,00,000	In process

## LIST OF PUBLICATIONS

### **Patents:**

1. An electrochemical process for deposition of  $\text{CuFe}_2\text{O}_4$ ,  $\text{NiFe}_2\text{O}_4$  and  $\text{CoFe}_2\text{O}_4$  ferrite thin films at room temperature  
C. D. Lokhande and S. D. Sartale  
An Indian Patent IN200300362-I3 (11 Feb 2005)

### **Review Articles or Book Chapters:**

1. *Atoms, Molecules and Nanoparticles manipulation by scanning probe microscopy*  
A. A. Tseng, **S. D. Sartale**, M. F. Luo, C. C. Kuo and Z. Li  
Chapter 1 "Nanofabrication: Fundamentals and Application", Ed. A. A. Tseng, World Scientific Publishing Company (June 2008) pp 1-32. [weblink](#)

### **Peer reviewed Articles:**

1. Investigation of Rutile  $\text{TiO}_2$  thin film formation by Thermal Oxidation of Sputtered Ti films  
**S.D. Sartale**, A.A. Ansari, S.-J. Rezvani  
Materials Chemistry and Physics (submitted)
2. Effect of ultrasonication on properties of sequential layer deposited nanocrystalline silver thin films  
A. B. Rohom, **S. D. Sartale**  
AIP Conference Proceedings 1447 (2012) 695-696 [weblink](#)
3. Effect of oxidizing agents in  $\text{CeO}_2$  thin film formation.  
S. M. Yadav, **S. D. Sartale**  
AIP Conference Proceedings 1447 (2012) 747-748 [weblink](#)
4. Deposition and Characterization of Nanocrystalline Silver Thin Films by Using SILAR Method  
A. B. Rohom, **S. D. Sartale**  
AIP Conference Proceedings 1349 (2011) 397-398 [weblink](#)
5. Chemical Synthesis of Nanocrystalline Ceria  
S. M. Yadav, **S. D. Sartale**  
AIP Conference Proceedings 1349 (2011) 401-402 [weblink](#)
6. *Investigation of Cu-Al surface alloy formation on copper substrate*  
**S. D. Sartale** and M. Yoshitake  
Journal of Vacuum Science and Technology B 28.(2010) 353-358 [weblink](#)
7. *Studies on  $\text{TiO}_2$  films prepared by thermal oxidation of dc sputtered Ti films*  
S. -J. Rezvani, A. A. Ansari, **S. D. Sartale**  
Solid State Physics (India) #, 54 (2009) 139-140
8. *Studies on NiCuZn ferrites synthesized by co-precipitation method*  
P. A. Jadhav and **S. D. Sartale**  
Solid State Physics (India) #, 54 (2009) 423-424
9. *Fabrication and characterization of  $\text{TiO}_2/p\text{-Si}$  heterojunction by thermal oxidation*  
A. A. Ansari, S. -J. Rezvani, **S. D. Sartale**  
Solid State Physics (India) #, 54 (2009) 963-964
10. Substrate assisted electrochemical deposition of patterned cobalt thin films  
M. Samee M. Gadwal, **S. D. Sartale**, V. L. Mathe, and H. M. Pathan  
Electrochemistry Communications 11 (2009) 1711–1713 [weblink](#)
11. *Adsorption and decomposition of Methanol on Au nanoclusters on  $\text{Al}_2\text{O}_3/\text{NiAl}(100)$  thin film.*  
**S. D. Sartale**, H. W. Shiu, M. H. Ten, M. F. Luo, Y. C. Lin, and Y. J. Shiu  
Journal of Physical Chemistry C 112 (2008) 2066-2073 [weblink](#)

12. *Growth and electronic properties of Au nanoclusters on thin film Al<sub>2</sub>O<sub>3</sub>/NiAl(100) studied by scanning tunneling microscopy and photoelectron spectroscopy*  
M.F. Luo, H.W. Shiu, M.H. Tien, **S.D. Sartale**, C.I. Chiang, Y.C. Lin and Y.J. Hsu  
Surface Science 602 (2008) 241-248 [weblink](#)
13. *Dehydrogenation of cyclohexene on Platinum nanoclusters on Al<sub>2</sub>O<sub>3</sub>/NiAl(100) thin film*  
**S. D. Sartale**, H. W. Shiu, W. H. Wei, M. F. Luo, and Y. J. Shiu  
Catalysis Letters 119 (2007) 95-100 [weblink](#)
14. *Structures of Co and Pt nanoclusters on a thin film of Al<sub>2</sub>O<sub>3</sub>/NiAl(100) from reflection high energy electron diffraction and scanning tunneling microscopy*  
M. F. Luo, W. H. Wen, C. S. Lin, C. I. Chiang, **S. D. Sartale** and M. S. Zei  
Surface Science 601 (2007) 2139-2146 [weblink](#)
15. *Scanning tunneling microscopy study of growth of Pt nanoclusters on thin film Al<sub>2</sub>O<sub>3</sub>/NiAl(100)*  
**S. D. Sartale**, H. W. Shiu, M. H. Ten, J. Y. Huang and M.-F Luo  
Surface Science 600 (2006) 4978-4985 [weblink](#)
16. *Engineering of patterns of Co nanoclusters on thin film Al<sub>2</sub>O<sub>3</sub>/NiAl(100) using STM manipulation techniques*  
**S. D. Sartale**, K. L. Lin, C. I. Chiang, M. F. Luo, and C. C. Kuo  
Applied Physics Letters 89 (2006) 063118: 1-3 [weblink](#)
17. *Growth of Co clusters on thin films Al<sub>2</sub>O<sub>3</sub>/NiAl(100)*  
M. F. Luo, C. I. Chiang, H. W. Shiu, **S. D. Sartale**, T. Y. Wang, P. L. Chen and C. C. Kuo  
Journal of Chemical Physics 124 (2006) 164709: 1-6 [weblink](#)
18. *Patterning Co nanoclusters on thin film Al<sub>2</sub>O<sub>3</sub>/NiAl(100)*  
M-F Luo, C. I. Chang, H. W. Shiu, **S. D. Sartale** and C. C. Kuo  
Nanotechnology 17 (2006) 360-366 [weblink](#)
19. *Room temperature chemical synthesis of lead selenide thin films with preferred orientation*  
R. B. Kale, **S. D. Sartale**, V. Ganesan, C. D. Lokhande, Yi-Feng Lin and Shih-Yuan Lin  
Applied Surface Science 253 (2006) 930-936 [weblink](#)
20. *Chemical and electrochemical synthesis of nanosized TiO<sub>2</sub> anatase for large area photon conversion*  
B. R. Sankapal, **S.D. Sartale**, M. Ch. Lux-Steiner and A. Ennaoui  
Comptes Rendus Chimie, 9 (2006) 702-707 [weblink](#)
21. *A Room Temperature Two-step Electrochemical Process for Large Area Nanocrystalline Ferrite Thin Films Deposition*  
**S. D. Sartale** and C. D. Lokhande,  
Journal of Electroceramics, 15 (2005) 35-44 [weblink](#)
22. *Room temperature synthesis of compact TiO<sub>2</sub> thin films for 3-D solar cells by chemical arrested route*  
R.S. Mane, Yun Hee Hwang, C.D. Lokhande, **S.D. Sartale** and Sung-Hwan Han,  
Applied Surface Science, 246 (2005) 271-278 [weblink](#)
23. *Preparation of Nanocrystalline ZnS by a New Chemical Bath Deposition Route*  
**S. D. Sartale**, B. R. Sankapal, M. Lux-Steiner and A. Ennaoui,  
Thin Solid Films, 480-481 (2005) 168-172 [weblink](#)
24. *Electrochemical deposition and Characterization of CoFe<sub>2</sub>O<sub>4</sub> thin films*  
**S. D. Sartale**, V. Ganesan, C. D. Lokhande  
Physica Status Solidi a, 202 (2005) 85-94 [weblink](#)
25. *Spray pyrolysis deposition of lanthanum telluride thin films and their characterizations*  
G. D. Bagde, **S. D. Sartale** and C. D. Lokhande  
Materials Chemistry and Physics, 89 (2005) 402-405 [weblink](#)

26. *Growth and characterization of nanocrystalline CdSe thin films deposited by the successive ionic layer adsorption and reaction method*  
R B Kale, **S. D. Sartale**, B K Chougule and C D Lokhande  
Semiconductor Science and Technology, 19 (2004) 980-986 [weblink](#)
27. *Chemical synthesis of Cd-Free wide band gap materials for solar cells*  
B. R. Sankapal, **S. D. Sartale** C. D. Lokhande and A. Ennaoui  
Solar Energy Materials & Solar Cells, 83 (2004) 447-458 [weblink](#)
28. *Novel electrochemical process for the deposition of nanocrystalline NiFe<sub>2</sub>O<sub>4</sub> Thin Films*  
**S. D. Sartale**, C. D. Lokhande, M. Giersig, V. Ganesan,  
Journal of Physics: Condensed Matter, 16 (2004) 773-784 [weblink](#)
29. *Deposition and annealing effect on lanthanum sulfide thin films by spray pyrolysis*  
G. D. Bagde, **S. D. Sartale** and C. D. Lokhande  
Thin Solid Films, 445 (2003) 1-6 [weblink](#)
30. *Spray pyrolytic deposition and characterization of lanthanum selenide (La<sub>2</sub>Se<sub>3</sub>) thin films*  
G. D. Bagde, **S. D. Sartale** and C. D. Lokhande  
Applied Surface Science, 214 (2003) 27-35 [weblink](#)
31. *Spray deposition of lanthanum selenide (La<sub>2</sub>Se<sub>3</sub>) thin films from non-aqueous medium and their characterizations*  
G. D. Bagde, **S. D. Sartale** and C. D. Lokhande  
Materials Chemistry and Physics, 80 (2003) 714-718 [weblink](#)
32. *Electrochemical synthesis of nanocrystalline CuFe<sub>2</sub>O<sub>4</sub> thin films from non-aqueous (ethylene glycol) medium*  
**S. D. Sartale**, C. D. Lokhande and M. Müller  
Materials Chemistry and Physics, 80 (2003) 120-128 [weblink](#)
33. *Electrochemical synthesis of nanocrystalline CoFe<sub>2</sub>O<sub>4</sub> thin films and their characterization*  
**S. D. Sartale** and C. D. Lokhande  
Ceramics International, 28 (2002) 467-477 [weblink](#)
34. *A novel method for the deposition of nanocrystalline Bi<sub>2</sub>Se<sub>3</sub>, Sb<sub>2</sub>Se<sub>3</sub> and Bi<sub>2</sub>Se<sub>3</sub> - Sb<sub>2</sub>Se<sub>3</sub> films - SILAR*  
C. D. Lokhande, B. R. Sankapal, **S. D. Sartale**, H. M. Pathan, M. Giersig and V. Ganesan,  
Applied Surface Science, 182 (2001) 413-417 [weblink](#)
35. *Room temperature synthesis of nanocrystalline ferrite (MFe<sub>2</sub>O<sub>4</sub>, M = Cu, Co and Ni) thin films using novel electrochemical route*  
**S. D. Sartale**, G. D. Bagde C. D. Lokhande and M. Giersig  
Applied Surface Science, 182 (2001) 366-371 [weblink](#)
36. *Preparation and characterization of nickel sulphide thin films using successive ionic layer adsorption and reaction (SILAR) method*  
**S. D. Sartale** and C. D. Lokhande,  
Materials Chemistry and Physics, 72 (2001) 101-104 [weblink](#)
37. *Studies on large area (~ 50 cm<sup>2</sup>) MoS<sub>2</sub> thin films deposited using successive ionic layer adsorption and reaction (SILAR) method*  
**S. D. Sartale** and C. D. Lokhande,  
Materials Chemistry and Physics, 71 (2001) 94-97 [weblink](#)
38. *Effect of annealing on the structural and optical properties of SILAR grown Cu<sub>x</sub>S thin films*  
**S. D. Sartale** and C. D. Lokhande,  
Indian Journal of Physics, 75A (2001) 375-378 [weblink](#)
39. *Electrochemical deposition and oxidation of CuFe<sub>2</sub> alloy thin films: a new method to deposit CuFe<sub>2</sub>O<sub>4</sub> thin*

*films at room temperature*

- S. D. Sartale** and C. D. Lokhande,  
Materials Chemistry and Physics, 70 (2001) 274-284 [weblink](#)
40. *Electrodeposition and characterization of Fe based alloys and their anodization*  
**S. D. Sartale** and C.D. Lokhande  
Solid State Physics (India)<sup>#</sup>, 44 (2001) 573-574.
41. *Magnetic properties of spray deposited CoFe<sub>2</sub>O<sub>4</sub> thin films*  
**S. D. Sartale** and C. D. Lokhande  
Solid State Physics (India)<sup>#</sup>, 44 (2001) 417-418.
42. *Room temperature preparation of NiFe<sub>2</sub>O<sub>4</sub> thin films by electrochemical route*  
**S. D. Sartale** and C. D. Lokhande  
Indian Journal of Engineering and Materials Science, 7 (2000) 404 –410 [weblink](#)
43. *Preparation and characterization of As<sub>2</sub>S<sub>3</sub> thin films deposited using successive layer adsorption and reaction (SILAR) method*  
**S. D. Sartale** and C. D. Lokhande,  
Materials Research Bulletin, 35 (2000) 1345-1353 [weblink](#)
44. *Deposition of cobalt sulphide thin films by successive ionic layer adsorption and reaction (SILAR) method and their characterization*  
**S. D. Sartale** and C. D. Lokhande  
Indian Journal of Pure and Applied Physics, 38 (2000) 48-52 [weblink](#)
45. *Growth of copper sulphide thin films by successive ionic layer adsorption and reaction (SILAR) method*  
**S. D. Sartale** and C. D. Lokhande  
Materials Chemistry and Physics, 65 (2000) 63-67 [weblink](#)
46. *Spray pyrolysed lanthanum sulphide thin films*  
G. D. Bagde, **S. D. Sartale**, B. R. Sankapal and C. D. Lokhande  
Solid State Physics (India)<sup>#</sup>, 43 (2000) 540-541.
47. *Effect of annealing on electrosynthesized CuFe<sub>2</sub>O<sub>4</sub> thin films*  
**S. D. Sartale**, H.M. Pathan and C. D. Lokhande,  
Solid State Physics (India)<sup>#</sup>, 43 (2000) 314-315.

<sup>#</sup>*Solid State Physics (India) is proceeding of Annual DAE-Solid State Symposium, India*

### **Publications without peer-review:**

1. *Scanning tunneling microscopy (STM) : a versatile tool in nanotechnology*  
**S. D. Sartale**, C. I. Chiang, H. W. Shiu, K. L. Lin and M. F. Luo  
Proceeding of National seminar on materials for advanced technology, 23-25 Jan. 2006, Kolhapur, India,  
Eds. C. D. Lokhande and B. K. Chougule (2006) pp 3-8.
2. *Fabrication of electroplated CuInS<sub>2</sub> thin film based solar cells*  
**S. D. Sartale**, A. Ennaoui, and M. Lux-Steiner  
Proceeding of 19<sup>th</sup> European Photovoltaic Solar Energy Conference and Exhibition 7-11 June 2004, Paris,  
France, Eds. W. Hoffmann, J. L. Bal, H. Ossenbrink, W. Palz, P. Helm. (2004) pp 1988-1992.
3. *A novel electrochemical process for nanocrystalline ferrite thin film deposition*  
C. D. Lokhande, S. S. Kulkarni and **S. D. Sartale**  
Proceeding of National Seminar on Electro and Magneto Ceramics, Devices and Systems, Allied Publication, India, (2002) pp 139-151.
4. *Preparation and characterization of MnS and MnS<sub>2</sub> thin films deposited by modified chemical bath deposition (M-CBD) method*

S.S. Kulkarni, **S. D. Sartale**, H. M. Pathan and C.D. Lokhande  
Proceeding of National Seminar on Electro and Magneto Ceramics, Devices and Systems, Allied Publication, India, (2002) pp 54-57.

5. *Effect of annealing on electrical properties of electrosynthesized  $CuFe_2O_4$  thin films*  
**S. D. Sartale**, S. A. Patil and C. D. Lokhande,  
Proceeding of International workshop on Preparation and Characterization of Technically Important Single Crystals, 26-28, Feb. 2001, New Delhi, India pp. 503-507.
6. *Preparation and characterization of CuFe alloy films and their anodization*  
**S. D. Sartale** and C. D. Lokhande  
Proceeding of DAE-BRNS National Symposium on Recent Trends in Electro and Magnetoceramics, 18-20 Feb. 1999, Kolhapur, India, pp. 212-214.
7. *Studies on large area ( $50\text{ cm}^2$ )  $MoS_2$  thin films deposited using successive ionic layer adsorption and reaction (SILAR) method*  
**S. D. Sartale** and C. D. Lokhande,  
'Physics of Semiconductor Devices' Vol. II, Editors, Vikram Kumar and S. K. Agarwal, Allied Publishers Limited, India, (1999) pp. 1435-1439.
8. *Electrodeposition and characterization of CuFe alloy thin films and their anodization*  
**S. D. Sartale** and C. D. Lokhande  
'Advances in Electronic Materials Devices & Systems', Editors A. B. Kulkarni, Sara Fatima Farida & P. V. Hunagund, Gulbarga University, Gulbarga, India, (1999), pp. 220-224.
9. *Studies on arsenic trisulphide thin films deposited using successive ionic layer adsorption and reaction (SILAR) process*  
**S. D. Sartale**, B. R. Sankapal, R. S. Mane and C. D. Lokhande  
'Advances in Electronic Materials Devices & Systems', Editors A. B. Kulkarni, Sara Fatima Farida & P. V. Hunagund, Gulbarga University, Gulbarga, India, (1999), pp. 182-186.
10. *A simple method for the deposition of antimony trisulphide thin films*  
B. R. Sankapal, R. S. Mane, **S. D. Sartale** and C. D. Lokhande,  
Advances in Electronic Materials Devices & Systems', Editors A. B. Kulkarni, Sara Fatima Farida & P. V. Hunagund, Gulbarga University, Gulbarga, India, (1999), pp. 166-169.
11. *Preparation and characterization of  $Cu_xS$  thin films by successive ionic layer adsorption and reaction (SILAR) process*  
**S. D. Sartale**, R. S. Mane, B. R. Sankapal and C. D. Lokhande,  
'Condensed Matter Physics', Editors, B. K. Agarwal and Hari Prakash, Narosa Publication House, India, (1999), pp. 210-214.

### **Conferences/Workshops Attended:**

1. National Conference on "Recent Trends in Nanotechnology", Vivekanand College, Kolhapur, India (**Invited Talk**).
2. National Seminar on "Development in Thin Film Processing and Characterization Technology", Yashwantrao Mohite College, Pune, India, October 8-9, 2012 (**Chaired a session**).
3. Brainstorming session on R & D output indicators for the project on 'Key output indicators for performance evaluation of scientific R & D activities in India', Maratta Chamber of Commerce, Industries and Agriculture, Pune, June 29, 2012 (**Invited and attended**).
4. INNOVATION – 2012 Regional Research Conference, May 21, 2012, Department of Physics, University of Pune (**ORAL Presentation**).
5. One Day Seminar on "Physics of Tomorrow", April 13, 2012, Department of Physics, University of Pune, Pune, India

6. State level workshop on NET/SET Examination Guidance, March 12, 2012, Yashvantrao Chavan Institute of Science, Satara, India (**Invited resource Person to deliver lecture as expert in Physics**).
7. 1<sup>st</sup> International Symposium on Physics and Technology of Sensors, March 8-10, 2012, YASHADA Auditorium, Pune, India (Poster presentation).
8. National workshop on nanoscience and nanotechnology (MWNST), January 6-7, 2012, MIT College of Engineering, Pune (**INVITED TALK**)
9. Seminar on synthesis and applications of functional materials (SAFM), September 23, 2011, National Defense Academy, Pune, India.
10. National Workshop on “Scanning Probe Microscopy: Techniques and Applications”, 11-12 March 2011, Department of Physics, University of Pune, Pune, India (**Local Advisory Committee member**).
11. International Conference on Nanoscience and Nanotechnology, 11-13 January, 2011, Swami Ramanand Teerth Marathwada University, Nanded, India (**Plenary Speaker**).
12. Lead College Activity, 5 January 2011, Yashvantrao Chavan Institute of Science, Satara, India (**Invited resource Person to deliver lecture on Nanotechnology**).
13. National Seminar on Advanced Materials – 2010, (NSAM-2010), 19-20, March, 2010 Shivaji University, Kolhapur, India (**ORAL PRESENTATION**).
14. International workshop on Frontiers in Electronic structure calculations: Techniques and Applications, 15-17 February, 2010, Department of Physics, University of Pune, Pune, India (**Local organizing committee member**).
15. State Level Seminar on Basic concepts of experiments in Material Science and Nano technology in research point of view, 11-12 Jan 2010, K.A.A.N.M.S Arts, Commerce & Science College, Satana, Tal. Baglan, Dist. Nashik, India (**INVITED TALK**).
16. National Seminar on Recent Trends in Composite Materials and Applications (RTCMA 2009), 30-31 Jan. 2009, Dada Patil Mahavidyalaya, Karjat, Dist Ahmednagar, India (**INVITED TALK**).
17. International conference on nanomaterials and applications (ICNAMA) 9-11 December 2008, Shivaji University, Kolhapur.
18. DST – sponsored workshop on Modern Aspects in Electrochemical Science and Technology, 15-19 September 2008, Central Electrochemical Research Institute, Karaikudi, India.
19. International conference on Materials for advanced technologies 2007, 1-6 July 2007, Singapore. (**ORAL PRESENTATION**).
20. Republic of China (Taiwan) Physics Society annual meeting and 1<sup>st</sup> Taiwan-AVS local chapter meeting on surface and nanoscience, 23-25 January 2007, Jhongli, Taiwan.
21. Asian Pacific Conference on Surface Science & Engineering, 19-21 Dec. 2006, Hong Kong. (**ORAL PRESENTATION**).
22. Twelfth NSRRC users’ meeting and workshops, 3-4 Oct. 2006, Hsinchu, Taiwan.
23. National seminar on materials for advanced technology, 23-25 Jan. 2006, Kolhapur, India. (**ORAL PRESENTATION**)
24. 19<sup>th</sup> European Photovoltaic Solar Energy Conference and Exhibition 7-11 June 2004, Paris, France.
25. CIS Solarzellen Symposium, 3 Mar. 2004, Hamburg, Germany.
26. Klausurtagung in Templin, 19-21 Jan. 2004, Templin, Germany.



27. 44<sup>th</sup> DAE-Solid State Physics Symposium, 26-30 Dec. 2001, Mumbai, India (**ORAL PRESENTATION of Ph.D. THESIS**).
28. Campaign on university research and training (Court 2001) 11<sup>th</sup> Mar. 2001, Kolhapur, India.
29. International Workshop on Nano-Materials, 5-8 Feb. 2001, Kolkata, India.
30. 43<sup>rd</sup> DAE-Solid State Physics Symposium, 27-31 Dec. 2000, Bilaspur, India.
31. International Seminar on Smart Materials, nanocomposites, Industrial Applications & Devices (SNIAD 2000), 28-19 July 2000, Kolhapur, India.
32. Computer Science and Computer Applications, 28 May 2000, Kolhapur, India.
33. National Seminar on Physics of Devices and Modern Applications, 23 March 2000, Kolhapur, India. (**ORAL PRESENTATION**).
34. National Seminar on Materials Science: Trends and Future, 24-25 Feb. 2000, Longawal, India.
35. Birth Centenary Celebration of Prof. K. S. Krishnan, Symposium on Condensed Matter Physics (SCMP-99), 4-6 Dec.1999, Calcutta, India.
36. Two days seminar on “Radiation Physics and Peaceful uses of Nuclear Energy”, 9-10 Sept. 1999, Kolhapur, India.
37. Recent Trends in Electro and Magneto Ceramics, 18-20 Feb. 1999, Kolhapur, India. (**ORAL PRESENTATION**).
38. Prof. K. S. Krishnan Birth Centenary Conference on Condensed Matter Physics (SCMP-99), 4-7 Dec. 1998, Allahabad, India.
39. Regional Workshop on Characterization of Semiconductor Nanostructures and their Applications to Optoelectronic Devices, 1-4 Dec. 1998, New Delhi, India. (**ORAL PRESENTATION**)

