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✧ **Brain Pool Fellow**, Chonnam National University, Gwangju, South Korea, 2018-2019.

✧ **Visiting Professor**, Hanyang University, Seoul, South Korea, 2010, 2012 and 2013.

✧ **Member, Research and Recognition Committee (Chemistry)**, Solapur University, Solapur, India, 2018-2023.

✧ **Coordinator**, Department of Applied Chemistry, Shivaji University, Kolhapur, India, 2019-2020.

Education:

B. Sc., Chemistry, Willingdon College, Sangli, MS, India

M. Sc., Chemistry, Shivaji University, Kolhapur, MS, India

Ph. D., Chemistry, Shivaji University, Kolhapur, MS, India

Work Experience:

Professor (since 2009), **Associate Professor** (2005-2009), Department of Chemistry, Shivaji University, Kolhapur

Associate Professor / Reader and Head (2003-2005), **Lecturer (Sr. Scale) and Head** (1998-2003), **Lecturer and Head** (1992-1998) Department of Chemistry, Sangola College, Sangola (Solapur University, Solapur)

Awards: Best Teacher Award, Shivaji University, Kolhapur, India 2002.

Patent: Korean

Title: Manufacturing method of copper chalcogenide using deep eutectic solution.

Reference: Application Number 10-2017-0036807 Patent Number: 1-1-2017-0288011-68

Publication/Grant date: 23.03.2017 (http://kportal.kipris.or.kr/kportal/search/total_search.do)

Research Paper Awards / Recognitions:

1. **Cover Image**, Journal of Materials Chemistry A. 6(45)(2018)22566-22579. (<https://pubs.rsc.org/en/content/articlelanding/2018/ta/c8ta90267d#!divAbstract>)
2. **American Chemical Society 'Top 10 Most Read' Paper**
Chem. Mater. 28 (2016) 3308-3317
3. **Key Scientific Article contributing to the excellence in Energy research**
Renewable Energy Global Innovations, Canada
(<https://reginnovations.org/key-scientific-articles/wurtzite-czts-nanocrystals-and-phase-evolution-to-kesterite-thin-film-for-solar-energy-harvesting/>)
Phys. Chem. Chem. Phys. 17 (2015) 19777-19788.
4. **Most Read Article** *Cryst. Eng. Comm.* 14 (6) (2012) 1920 - 1924.
5. **'Science Direct Top 10' most downloaded article 2011 and 'Science Direct Top 25 Hottest Article'** *C. R. Chim.* 14 (2011) 883 - 886.
6. **'Science Direct Top 25 Hottest Article'** *Appl. Surf. Sci.* 257(2010) 1786 - 1791.
7. **'Science Direct Top 25 Hottest Article'** *Electrochim. Acta* 55 (2010) 4057- 4061.
8. **Best Paper Award**, International Conference - American Canadian Conference for Academic Disciplines, Ryerson University, Toronto, Canada, 2009.
9. **Excellent Paper Award** (with honorarium of £300), World Gold Council, London, 2001.

Journal's Referee:

Journals published by American Chemical Society, Royal Society of Chemistry, Elsevier, Springer, Wiley, Taylor and Francis, Oxford University Press, American Scientific Publishers, NISCIR

Ph. D. Guidance: 22 students (17 degree awarded, 05 working)

Research Areas of Interest:

Thin films for energy storage devices, Materials for solar cells, Ionic liquids as electrolytes, Analytical Chemistry (separation science – solvent extraction, spectrophotometry and adsorption)

Research Activities:**Research Funding (Rs. 145L external funding)**

DAE-BRNS (2 projects); CSIR (1 project); BARC (1 project); RGSTC (1 project)

UGC (3 major projects and 5 minor projects)

Research Publications: (Total= 104) (Materials Science-56; Analytical Chemistry - 48)

Impact factor	>14	10-11	8 - 9	6 - 7	5 - 6	4 - 5	3 - 4	2 - 3	1 - 2	<1
No. of papers	1	5	3	2	9	8	14	17	16	29

Publications are in journals published by Nature Publishing Group, American Chemical Society, Royal Society of Chemistry, Elsevier, SpringerNature, Wiley, Taylor and Francis etc.

For a complete updated list, visit my Google Scholar and Scopus pages

<https://scholar.google.co.in/citations?user=nX-3tE4AAAAJ&hl=en>

<https://www.scopus.com/authid/detail.uri?authorId=6602913340>

Material Science: (few selected publications)

- Patil S.S., Patil D.R., Apte S.K., Kulkarni M.V., Ambekar J.D., Park C.J., Gosavi S.W., **Kolekar S.S.**, Kale B.B.

Confinement of Ag₃PO₄ nanoparticles supported by surface plasmon resonance of Ag in glass: efficient nanoscale photocatalyst for solar H₂ production from waste H₂S.

Appl. Catal. B: Environmental 190(2016)75–84. **IF 14.229**

- Ghorpade U.V., Suryawanshi M.P., Shin S.W., Kim J., Kang S.H., Ha J.S., **Kolekar S.S.**, Kim J.H.

Unassisted visible solar water splitting with efficient photoelectrodes sensitized by quantum dots synthesized via an environmentally friendly and efficient eutectic solvent-mediated approach.

J. Mater. Chem. A 6(45)(2018)22566-22579. **IF 10.733 COVER IMAGE**

- Ghorpade U.V., Suryawanshi M.P., Shin S.W., Wang X., Jo E., Bae H., Park K.S., Ha J.S., **Kolekar S.S.**, Kim J.H.

Eutectic solvent-mediated selective synthesis of Cu-Sb-S-based nanocrystals: Combined experimental and theoretical studies toward highly efficient water splitting.

J. Mater. Chem. A 6(40)(2018)19798-19809. **IF 10.733**

- Patil S.S., Dubal D.P., Tamboli M.S., Ambekar J.D., **Kolekar S.S.**, Gomez-Romero P., Kale B.B., Patil D.R.

Ag:BiVO₄ dendritic hybrid-architecture for high energy density symmetric supercapacitors.

J. Mater. Chem. A 4(2016)7580-7584. **IF 10.733**

- Vadiyar M.M., Bhise S.C., Ghule K.S., **Kolekar S.S.**, Chang J.Y., Ghule A.V.

Low cost flexible 3-D aligned and cross-linked efficient ZnFe₂O₄ nano-flakes electrode on stainless steel mesh for symmetric supercapacitor.

J. Mater. Chem. A 4(2016)3504–3512 **IF 10.733**

6. Ghorpade U.V., Suryawanshi M.P., Shin S.W., Kim I., Ahn S.K., Yun J.H., Jeong C., **Kolekar S.S.**, Kim J.H.
Colloidal wurtzite Cu_2SnS_3 (CTS) nanocrystals and their applications in solar cells.
Chem. Mater. 28(2016)3308-3317. **IF 10.159**
7. Vadiyar M.M., **Kolekar S.S.**, Chang J.Y., Ye Z., Ghule A.V.
Anchoring ultrafine $\text{ZnFe}_2\text{O}_4/\text{C}$ nanoparticles on 3D ZnFe_2O_4 nano-flakes for boosting cycle stability and energy density of flexible asymmetric supercapacitor.
ACS Appl. Mater. Interfaces 9(2017)26016–26028 **IF 8.456**
8. Patil S.S., Dubal D.P., Deonikar V.G., Tamboli M.S., Ambekar J.D., Gomez-Romero P., **Kolekar S.S.**, Kale B.B., Patil D.R.
Fern-like rGO/BiVO₄ hybrid nanostructures for high-energy symmetric supercapacitor.
ACS Appl. Mater. Interfaces 8(2016)31602–31610. **IF 8.456**
9. Yoon H., Heon N.S., Choi J.Y., Kim M.W., Kim H., An H.S., Min B.K., Ahn S.J., Yun J.H., Gwak J., Yoon K.H., **Kolekar S.S.**, Hest M.F.A.M., Al-Deyab S.S., Swihart M.T., Yoon S.S.
Carbon- and oxygen-free $\text{Cu}(\text{InGa})(\text{SSe})_2$ solar cell with a 4.63% conversion efficiency by electrostatic spray deposition.
ACS Appl. Mater. Interfaces 6(2014)8369–8377. **IF 8.456**
10. Vadiyar M.M. Bhise S.C., Patil S.K., **Kolekar S.S.**, Shelke A.R., Deshpande N.G., Chang J.Y., Ghule K.S., Ghule A.V.
Contact angle measurement: a preliminary diagnostic tool for evaluating the performance of ZnFe_2O_4 nano-flake based supercapacitors.
Chem. Commun. 52(2016)2557-2560. **IF 6.164**
11. Ghorpade U.V., Suryawanshi M.P., Shin S.W., Gurav K.V., Patil P.S., Pawar S.P., Hong C.W., Kim J.H., **Kolekar S.S.**
Towards environmentally benign approaches for the synthesis of CZTSSe nanocrystals by hot injection method: a status review.
Chem. Commun., 50(2014)11258—11273. **IF 6.164**
12. Vadiyar, M.M., **Kolekar, S.S.**, Chang, J.Y., Kashale, A.A., Ghule A.V.,
Reflux condensation mediated deposition of Co_3O_4 nanosheets and ZnFe_2O_4 nanoflakes electrodes for flexible asymmetric supercapacitor.
Electrochim. Acta 222(2016)1604–1615. **IF 5.383**
13. Jadhav P.R., Suryawanshi M.P., Dalavi D.S., Patil D.S., Jo E.A., **Kolekar S.S.**, Wali A.A., Karanjkar M.M., Kim J.H., Patil P.S.
Design and electro-synthesis of 3-D nanofibers of MnO_2 thin films and their application in high performance supercapacitor.
Electrochim. Acta 176(2015)523–532. **IF 5.383**
14. Pawar S.A., Patil D.S., Patil S.K., Awale D.V., Devan R.S., Ma Y.R., **Kolekar S.S.**, Kim J.H., Patil P.S.
Thiocyanate functionalized ionic liquid electrolyte for photoelectrochemical study of cadmium selenide pebbles.
Electrochim. Acta 148(2014)310–316. **IF 5.383**
15. Shaikh J.S., Pawar R.C., Devan R.S., Ma Y.R., Salvi P.P., **Kolekar S.S.**, Patil P.S.
Synthesis and characterization of Ru doped CuO thin films for supercapacitor based on brønsted acidic ionic liquid.
Electrochim. Acta 56(2011)2127 - 2134. **IF 5.383**
16. Pawar S.M., Pawar B.S., Moholkar A.V., Choi D.S., Yun J.H., Moon J.H., **Kolekar S.S.**, Kim J.H.
Single step electro synthesis of $\text{Cu}_2\text{ZnSnS}_4$ (CZTS) thin films for solar cell application.
Electrochim. Acta 55(2010)4057 - 4061. **IF 5.383**

17. Patil S.S., Mali M.G., Roy A., Tamboli M.S., Deonikar V.G., Patil D.R., Kulkarni M.V., Al-Deyab S.S., Yoon S.S., **Kolekar S.S.**, Kale B.B.
Graphene-wrapped $\text{Ag}_3\text{PO}_4/\text{LaCO}_3\text{OH}$ heterostructures for water purification under visible light.
J. Energy Chem. 25(2016) 845-853. **IF 5.162**
18. Pawar B.S., Pawar S.M., Shin S.W., Choi D.S., Park C.J., **Kolekar S.S.**, Kim J.H.
Effect of complexing agent on the properties of electrochemically deposited $\text{Cu}_2\text{ZnSnS}_4$ (CZTS) thin films.
Appl. Surf. Sci. 257(2010)1786 - 1791. **IF 5.155**
19. Patil S. S., Mali M.G., Tamboli M.S., Patil D.R., Kulkarni M.V., Yoon H., Kim H.Y., Al-Deyab S.S., Yoon S.S., **Kolekar S.S.**, Kale B.B.
Green approach for hierarchical nanostructure Ag-ZnO and their photocatalytic performance under sunlight.
Catal. Today 260(2016)126–134. **IF 4.888**
20. Patil S.S., Mali M.G., Hassan M.A., Patil D.R., **Kolekar S.S.**, Ryu S.W.
One-pot in situ hydrothermal growth of $\text{BiVO}_4/\text{Ag}/\text{rGO}$ hybrid architectures for solar water splitting and environmental remediation.
Nature Sci. Rep. 7(2017) Article number: 8404 1-12 **IF 4.011**
21. Patil D.S., Pawar S.A., Patil S.K., Salavi P.P., **Kolekar S.S.**, Devan R.S., Ma Y.R., Kim J.H., Shin J.C., Patil P.S.
Electrochemical performance of potentiodynamically deposited polyaniline electrodes in ionic liquid
J. Alloys Compd. 646(2015)1089-1095. **IF 4.175**
22. Pawar D.K., Pawar S.M., Patil P.S. **Kolekar S.S.**
Synthesis of nanocrystalline nickel-zinc ferrite ($\text{Ni}_{0.8}\text{Zn}_{0.2}\text{Fe}_2\text{O}_4$) thin films by chemical bath deposition method.
J. Alloys Compd. 509(2011)3587 - 3591. **IF 4.175**
23. Patil S.S., Tamboli M.S., Deonikar V.G., Umarji G.G., Ambekar J.D., Kulkarni M.V., **Kolekar S.S.**, Kale B.B., Patil D.R.
Magnetically separable $\text{Ag}_3\text{PO}_4/\text{NiFe}_2\text{O}_4$ composites with enhanced photocatalytic activity.
Dalton Trans. 44(2015)20426–20434. **IF 4.099**
24. Ghorpade U.V., Suryawanshi M.P., Shin S.W., Hong C.W., Kim I., Moon J.H., Yun J.H., Kim J.H., **Kolekar S.S.**
Wurtzite CZTS nanocrystals and phase evolution to kesterite thin film for solar energy harvesting.
Phys. Chem. Chem. Phys. 17(2015)19777-19788. **IF 3.567**
25. Zate M.K., Shaikh S.M.F., Jadhav V.V., Tehare K.K., **Kolekar S.S.**, Mane R.S., Naushad M., Pawar B.N., Hui K.N.
Synthesis and electrochemical supercapacitive performance of nickel-manganese ferrite composite films.
J. Anal. Appl. Pyrolysis 116(2015)177–182. **IF 3.470**
26. Mali S.S., Betty C.A., Bhosale P.N., Devan R.S., Ma Y.R., **Kolekar S.S.**, Patil P.S.
Hydrothermal synthesis of rutile TiO_2 nanoflowers using brønsted acidic ionic liquid [BAIL]: Synthesis, characterization and growth mechanism.
CrystEngComm 14(2012)1920–1924. **IF 3.382**
27. Awale D.V., Bhise S.C., Patil S.K., Vadiyar M.M., Jadhav P.R., Navathe G.J., Kim J.H., Patil P.S., **Kolekar S.S.**
Nanopetals assembled copper oxide electrode for supercapacitor using novel 1-(1'-methyl-2'-oxo-propyl)-2,3-dimethylimidazolium chloride ionic liquid as an electrolyte.

- Ceram. Int.* 42(2016)2699–2705. **IF 3.450**
28. Navathe G.J., Patil D.S., Jadhav P.R., Awale D.V., Teli A.M., Bhise S.C., **Kolekar S.S.**, Karanjkar M.M., Kim J.H., Patil P.S.
Rapid synthesis of nanostructured copper oxide for electrochemical supercapacitor based on novel [HPMIM][Cl] ionic liquid.
J. Electroanal. Chem. 738(2015)170–175. **IF 3.218**
29. Kashale A.A., Vadiyar M.M., **Kolekar S.S.**, Sathe B.R., Chang J.Y., Dhakal H.N., Ghule A.V.
Binder free 2D aligned efficient MnO₂ micro flowers as stable electrodes for symmetric supercapacitor applications.
RSC Adv. 7(2017)36886–36894. **IF 3.049**
30. Vadiyar M.M., Bhise S.C., Patil S.K., Patil S.A., Pawar D.K., Ghule A.V., Patil P.S., **Kolekar S.S.**
Mechanochemical growth of porous ZnFe₂O₄ nano-flakes thin film as electrode for supercapacitor application.
RSC Adv., 5(2015)45935–45942. **IF 3.049**
31. Pawar S.M., Inamdar A.I., Pawar B.S., Gurav K.V., Shin S.W., Yanjun X., **Kolekar S.S.**, Lee J.H., Kim J.H., Im H.
Synthesis of Cu₂ZnSnS₄ (CZTS) absorber by rapid thermal processing (RTP) sulfurization of stacked metallic precursor films for solar cell applications.
Mater. Lett. 118(2014)76–79. **IF 3.019**
32. Patil R.S., Kokate M.R., Shinde D.V., **Kolekar S.S.**, Han S.H.
Synthesis and enhancement of photocatalytic activities of ZnO by silver nanoparticles
Spectrochim. Acta Part A 122(2014)113–117. **IF 2.931**
33. Patil R.S., Kokate M.R., **Kolekar S.S.**
Bioinspired synthesis of highly stabilized silver nanoparticles using *Ocimum tenuiflorum* leaf extract and their antibacterial activity.
Spectrochim. Acta Part A 91(2012)234–238. **IF 2.931**
34. Vadiyar M.M., Patil S.K., Bhise S.C., Ghule A.V., Han S.H., **Kolekar S.S.**
Improved electrochemical performance of a ZnFe₂O₄ nanoflake-based supercapacitor electrode by using thiocyanate-functionalized ionic liquid electrolytes.
Eur. J. Inorg. Chem. 36(2015)5832–5838. **IF 2.578**
35. Bhise S.C., Awale D.V., Vadiyar M.M., Patil S.K., Kokare B.N., **Kolekar S.S.**
Facile synthesis CuO nanosheets electrode for supercapacitor with long cyclic stability in novel methyl imidazole based ionic liquid electrolyte.
J. Solid State Electrochem. 21(2017)2585–2591 **IF 2.531**
36. Patil R.S., Kokate M.R., Salvi P.P., **Kolekar S.S.**
A novel one step synthesis of silver nanoparticles using room temperature ionic liquid and their biocidal activity.
C. R. Chim. 14(2011)1122–1127. **IF 2.366**
37. Kariem M., Yawera M., Kumar M., Sheikh H.N., Sood P., **Kolekar S.S.**
Self-assembly of coordination polymers of Pr(III), Nd(III), Tb(III), Dy(III) and Ho(III) with 5-hydroxyisophthalic acid and adipic acid: Syntheses, structures, porosity, luminescence and magnetic properties.
J. Solid State Chem. 255(2017)61–69. **IF 2.291**
38. Vadiyar M., **Kolekar S.**, Chang J., Deshpande N., Kashale A. Ghule A.
Binder free chemical synthesis of ZnFe₂O₄ thin films for asymmetric supercapacitor with improved performance.
Ionics 23(2017)741–749 **IF 2.289**

39. Patil S.K., Vadiyar M.M., Bhise S.C., Patil S.A., Awale D.V., Ghorpade U.V., Kim J.H., Ghule A.V., **Kolekar S.S.**
Hydroxy functionalized ionic liquids as promising electrolytes for supercapacitor study of α -Fe₂O₃ thin films.
J. Mater. Sci.: Mater. Electron. 28(2017)11738–11748 **IF 2.195**
40. Patil S.S., Patil R.H., Kale S.B., Tamboli M.S. Ambekar J.D., Gade W.N., **Kolekar S.S.**
Kale B.B.
Nanostructured microspheres of silver @ zinc oxide: an excellent impeder of bacterial growth and biofilm.
J. Nanopart. Res. 16(2014)2717. **IF 2.009**

Analytical Chemistry: (*few selected publications*)

41. Utture S.C., Banerjee K., **Kolekar S.S.**, Dasgupta S., Oulkar D.P., Patil S.H., Wagh S.S., Adsule P.G., Anuse M.A.
Food safety evaluation of buprofezin, dimethoate and imidacloprid residues in pomegranate.
Food Chem. 131(2012)787–795. **IF 5.399**
42. Shilimkar T.N. **Kolekar, S.S.** Anuse M.A.
Rapid extraction separation of aluminium(III) from associated elements with *n*-octylaniline from succinate media.
Sep. Puri. Technol. 42(1)(2005)55 - 63. **IF 5.107**
43. Patil S.K., Patil S.A., Vadiyar M.M., Awale D.V., Sartape A.S., Walekar L.S., Kolekar G.B., Ghorpade U.V., Kim J.H., **Kolekar S.S.**
Tailor-made dicationic ionic liquid as a fluorescent sensor for detection of hydroquinone and catechol.
J. Mol. Liq. 244(2017)39–45 **IF 4.561**
44. Kamble G.S., **Kolekar S.S.**, Han S.H. Anuse M.A.
Synergistic liquid-liquid extractive spectrophotometric determination of gold(III) using 1-(2',4'-dinitro aminophenyl)-4,4,6-trimethyl-1,4-dihydropyrimidine-2-thiol.
Talanta, 81(2010)1088 - 1095. **IF 4.916**
45. **Kolekar S.S.**, Anuse M.A.
Solvent extraction separation of rhodium(III) with *N*-*n*-octylaniline as an extractant.
Talanta 58(2002)761-771. **IF 4.916**
46. Dasgupta S., Banerjee K., Utture S., Kusari P., Wagh S., Dhumal K., **Kolekar S.**, Adsule P.
Extraction of pesticides, dioxin-like PCBs and PAHs in water based commodities using liquid–liquid microextraction and analysis by gas chromatography–mass spectrometry.
J. Chromatogr. A 1218 (38)(2011)6780– 6791. **IF 3.858**
47. Utture S.C., Banerjee K., Dasgupta S., Patil S.H., Jadhav M.R., Wagh S.S., **Kolekar S.S.**, Anuse M.A., Adsule P.G.
Dissipation and distribution behavior of azoxystrobin, carbendazim and difenoconazole in pomegranate fruits.
J. Agric. Food. Chem. 59(2011)7866–7873. **IF 3.571**
48. Kamble G.S., Gaikwad A.P, Kokare B.N., **Kolekar S.S.**, Han S.H., Anuse M.A.
Rapid and sensitive synergistic extraction and spectrophotometric determination of silver(I) using 1-(2',4'-dinitro aminophenyl)-4,4,6-trimethyl-1,4-dihydropyrimidine-2-thiol: analysis of real samples.
Ind. Eng. Chem. Res. 50(19)(2011)11270–11279. **IF 3.375**
49. Sartape A.S., Mandhare A.M., Jadhav V.V., Raut P.D., Anuse M.A., **Kolekar S.S.**
Removal of malachite green dye from aqueous solution with adsorption technique using *Limonia acidissima* (Wood apple) shell as low cost adsorbent.

- Arabian J. Chem.* 10(2)(2017)S3229 - S3238 **IF 3.298**
50. Mane C.P., Mahamuni S.V., **Kolekar S.S.**, Han S.H., Anuse M.A.
Hexavalent chromium recovery by liquid-liquid extraction with 2-octylaminopyridine from acidic chloride media and its sequential separation from other heavy toxic metal ions.
Arabian J. Chem. 9(2)(2016)S1420-S1427. **IF 3.298**
51. Mandhare A.M., Han S.H., Anuse M.A., **Kolekar S.S.**
Liquid - liquid anion exchange extraction studies of samarium(III) from salicylate media using high molecular weight amine.
Arabian J. Chem. 8(2015)456–464. **IF 3.298**
52. Kamble G.S., Ghare A.A. **Kolekar S.S.**, Han S.H., Anuse M.A.
Development of an reliable analytical method for synergistic extractive spectrophotometric determination of cobalt(II) from alloys and nano composite samples by using chromogenic chelating ligand.
Spectrochim. Acta Part A 84(2011)117– 124. **IF 2.931**
53. Kamble G.S., **Kolekar S.S.**, Anuse M.A.
Synergistic extraction and spectrophotometric determination of copper(II) using 1- (2',4'-dinitro aminophenyl)- 4,4,6-trimethyl-1,4-dihydropyrimidine-2-thiol: analysis of alloys, pharmaceuticals and biological samples.
Spectrochim. Acta Part A 78(2011)1455 - 1466. **IF 2.931**
54. Mane C.P., Mahamuni S.V., Gaikwad A.P., Shejwal R.V., **Kolekar S.S.**, Anuse M.A.
Extraction and separation of mercury(II) from succinate media with high molecular weight amine as an extractant.
J. Saudi Chem. Soc. 19(2015)46–53. **IF 2.759**
55. Salvi P.P., Mandhare A.M., Sartape A.S., Pawar D.K., Han S.H., **Kolekar S.S.**
Brønsted acidic ionic liquids promoted cyclocondensation reaction: Synthesis of 1,8 dioxo-octahydroanthene.
C. R. Chim. 14(2011)883–886. **IF 2.366**

Book Publication: International (1), University (1)

Conference/Symposia/Workshop Presentations:

International: 22 (Canada, South Korea and India)

National: 19

International (last five years)

1. Eutectic-mediated selective synthesis of Cu-Sb-S-based nanocrystals: Combined experimental and theoretical studies toward highly efficient water splitting.
Brain Pool (BP) Program & Korea Research Fellowship (KRF) Program, Annual Workshop, Seoul, **South Korea**, December 18, **2018**.
2. Unassisted solar water splitting via ecological and efficient eutectic mediated quantum dot synthesized efficient photoelectrodes.
Young Korean Research Open Symposium (Y-KROS), organized by Korean Academy of Science and Technology (KAST) and National Research Foundation (NRF), Seoul, **South Korea**, August 24-25, **2018**.
3. CTS nanocrystal synthesis and their applications in solar cells,
Asia- Pacific Kesterite Workshop 2018, organised by Optoelectronics Convergence Research Center, Chonnam National University, **South Korea**, August 21, **2018**.
4. 7th Sungkyun International Solar Forum (SISF),
Sungkyunkwan University (SKKU), Seoul, **South Korea**, June 27 – 29, **2018**.
5. Chemical synthesis of ZnO@NiFe₂O₄ heterostructure thin films for supercapacitor applications.
International Conference on Advances in Chemical Sciences (IC-ACS 2018), Department of Chemistry, Shivaji University, Kolhapur, **India**, February 1-3, **2018**.

6. Electrochemical study of copper oxide using dimethylimidazolium based ionic liquid.
3rd International Conference on Innovative Research in Science and Technology (ICIRST – 2017), GKG College, Kolhapur, **India**, November 7-8, **2017**.
7. Thiocyanide functionalized ionic liquid electrolytes for the photoelectrochemical study of CdSe thin films.
2nd International Conference on Physics of Materials and Materials based Device Fabrication(ICPM-MDF-2014), Department of Physics, Shivaji University, Kolhapur, **India**, January 13-15, **2014**.
8. Facile hydrothermal synthesis heterostructured Ag-ZnO with enhanced photocatalytic activity.
International Conference on Innovations in Energy, Polymer & Environmental Sciences (IEPES-2014), Yashwantrao Chavan Institute of Science, Satara, **India**, January 10-12, **2014**.

National (last five years)

1. Supercapacitor study of α -Fe₂O₃ thin films in hydroxy functionalized ionic liquid as electrolyte.
National Conference on Innovative Research in Chemical Sciences (IRCS-2017) Department of Chemistry, Shivaji University, **Kolhapur**, February 1-2, **2017**.
2. Mahogany fruit shell activated carbon (MFSAC) an efficient low cost adsorbent for removal of toxic metals.
National Conference on Frontiers in Chemical and Material Sciences (FCMS-2015), Department of Chemistry, Shivaji University, **Kolhapur**, January 16-17, **2015**.
3. High-quality spinel zinc ferrite (ZnFe₂O₄) thin films with porous nano - flakes morphology for electrochemical energy storage.
National Symposium on Current Trends in Chemical and Nano Science (CTCNS-2014), Department of Chemistry, Shivaji University, **Kolhapur**, January 17-18, **2014**.

Chairman- Scientific Session in Conference:

International

1. *International Conference on 'Innovations in Energy, Polymer & Environmental Sciences'* (IEPES-2014), Yashwantrao Chavan Institute of Science, Satara, January 10-12, **2014**.
2. *International Conference 'American Canadian Conference for Academic Disciplines'*, Ryerson University, **Toronto, Canada**, May 25-28, **2009**.

National

1. National Science Day, Shivaji University, Kolhapur, February 27-28, **2015**.
2. National Conference on Frontiers in Agrochemicals and Pest Management (FAPM-2015), Department of Agrochemicals and Pest Management, Shivaji University, Kolhapur, January 30-31, **2015**.
3. National Symposium on Current Trends in Chemical and Nano Science (CTCNS-2014), Department of Chemistry, Shivaji University, Kolhapur, 17-18 January **2014**.
4. DST sponsored INSPIRE Science Camp, Department of Technology, Shivaji University, Kolhapur, May 30, **2012**.
5. Workshop on 'Nuclear Power & Environment' Shri. S. H. Kelkar College, Devgad (Mumbai University), June 5-6, **2011**.

Invited Talks: International (01), National (12)

Refresher/Orientation/Training Programme Participation:

1. *Refresher course in Material Science*, Mysore University, **Mysore**, March 11 – 31, **2009**.

2. DST Sponsored 'Five-Day SERC School & CEP Course on Synthesis, Characterization and applications of Nanoparticles', Department of Chemical Engineering, Indian Institute of Technology, **Mumbai**, December 16 - 20, **2008**.
3. *Workshops on Physics with Home-made Equipment & Innovative Experiments (PHOENIX)*, Inter University Accelerator Centre (former NSC), New **Delhi**, November 12 - 17, **2007**.
4. *School on Trace Analysis (TRACE- 07)*, Saha Institute of Nuclear Physics, **Kolkata**. October 3 - 13, **2007**.
5. *Refresher Course in Chemistry*, Goa University **Goa**, January 10 – 31, **2003**.
6. *49th BRNS-IANCAS National Workshop on Radiochemistry and Applications of Radioisotopes* Department of Chemistry, Goa University, **Goa**, January 14 - 24, **2003**.
7. *Orientation Programme*, Goa University, **Goa**, September 4 – 30, **1995**.
8. *Workshop on Radiochemistry and Applications of Radioisotopes* Willingdon College, **Sangli**, May 4 - 11, **1994**.

Organization of Conference / Symposium / Refresher Course:

1. **Co-ordinator**, Refresher Course in Chemistry, Department of Chemistry, Shivaji University, Kolhapur, Nov 16 - Dec 6, **2015**.
2. **Liaison Officer**, Industry-Academia Meet for 'Inclusive Innovation – 2013', participated by all universities in Maharashtra, the event hosted by Maharashtra University, of Health Sciences, Nasik, December 10-11, **2013**.
3. **Co-ordinator**, Workshop on 'A Brain-storming session for application of technology for sustainable development in the state of Maharashtra' jointly organized by The Maharashtra Academy of Sciences and Shivaji University, Kolhapur, and sponsored by Rajiv Gandhi Science & Technology Commission (RGSTC), Government of Maharashtra November 26-27, **2012**.
4. **Convener**, "Shikshan Parishad - 2012" Conference jointly organized by Shivaji University, Kolhapur and Z 24 Tass News Channel, June 18, **2012**.
5. **Co-Ordinator**, Examiners Panel at "Avishkar- 2011-2012", Vth Maharashtra State Inter-University Research Convention, Shivaji University, Kolhapur, January 13-15, **2012**.
6. Convener, "UDYOGLAKSHMI - 2011" International Marketing and Business Conference, Shivaji University, Kolhapur, December 25-26, **2011**.
7. **Convener**, 7th University-Industry Council Symposium: *Industry-Academia Collaborations for the Development of Western Region of India*, organized in association with Confederation of Indian Industries (CII), New Delhi, Association of Indian Universities (AIU), New Delhi. The participants were, Vice Chancellors of Universities, Directors of National Institutes of Technology, Directors of Central Government Institutes and Industrialists and academicians. Shivaji University, Kolhapur, August 5-6, **2010**,
8. **Member**, Organising Committee of 'International Training Programme on Rural Agribusiness Development and Marketing' organized in collaboration with Asian Institute of Technology, Thailand, held at Shivaji University, Kolhapur, 13-18 March 2006.
9. **Member**, Organising Committees for conferences organized by Department of Chemistry, Shivaji University, Kolhapur, since 2005.

Member on Academic Bodies:

1. Research and Recognition Committee, **Solapur University**, Solapur, **2018-2023**.
2. Ad-hoc Board in Environmental Science, Shivaji University, Kolhapur, **2008 - 2010**.
3. Sub-Committee, School of Nanoscience and Nanotechnology, Shivaji University, Kolhapur, **2011**.

4. Sub-Committee, Post Graduate Diploma in Industrial Safety, Health and Environment (PGDISHE), Department of Environmental Science, Shivaji University, Kolhapur, **2008**.
5. Syllabus Committee, M. Sc. Chemistry, Applied Chemistry, Shivaji University, Kolhapur, **since 2005**.

Administrative Positions:

1. **Coordinator**, Department of Applied Chemistry, Shivaji University, Kolhapur, **2019-2020**.
2. **Coordinator**, University Industry Interaction Centre, Shivaji University, Kolhapur, **2007-2018**.
3. **Coordinator, Memorandum of Understanding (MoU)** between University Industry Interaction Center, Shivaji University, Kolhapur and Leaders in Industry-University Cooperation, Chonnam National University, Gwangju, **South Korea (International MoU), 2016**.
4. **Member**, Standing Committee, Shivaji University, Kolhapur, **2010-2012**.
5. **Rector**, Boys Hostel, Shivaji University, Kolhapur, **2005-2009**.
6. **Coordinator**, Certificate Course in Analytical Instrumentation, Department of Chemistry, Shivaji University, Kolhapur, **2007-2008**.
7. **Head**, Department of Chemistry, Sangola College, Sangola, **1992-2005**.
8. **Coordinator**, Steering Committee, National Assessment and Accreditation Council (NAAC), Sangola College, Sangola **2003-2005**.
9. **Coordinator**, College Science Improvement Programme (COSIP), Sangola College, Sangola, **2002-2005**.
10. **Coordinator**, Maharashtra Talent Search Examination (MTSE), Sangola Taluka, Sangola, conducted by Wadia College, Pune, **1995-2005**.

Member on Committees: (*few selected*)

1. Departmental Committee, Department of Chemistry, Shivaji University, Kolhapur, **2006-2007** and **2019-2020**.
2. Administrative Excellence Award Committee, Shivaji University, Kolhapur, **2014**.
3. Panel of Expert Guides for “*AVISHKAR 2014-15*”, Shivaji University, Kolhapur **2014**.
4. Entrance Examination Committee, Shivaji University, Kolhapur **2014**.
5. Executive Committee, Yashwantrao Chavan School of Rural Development, Shivaji University, Kolhapur **since 2013**.
6. Departmental Research Committee, Department of Agrochemicals and Pest Management, Shivaji University, Kolhapur **2010-2012**.
7. Editorial Board, *Shivsandesh*, an E-Magazine, Shivaji University, Kolhapur, **2008 -2014**.
8. Golden Jubilee Celebration Committees, Shivaji University, Kolhapur, **2011-2012**.
9. Syllabus Committee, M. Sc. Chemistry, Applied Chemistry, Shivaji University, Kolhapur, **since 2005**.
10. University Level Committee constituted to ‘*Improve the Standard of Higher Education*’, as per guidelines of Higher and Technical Education, Government of Maharashtra, **2011**.
11. University Delegation to visit Manipal Academy of Higher Education, Manipal, Karnataka state, September, **2007**.
12. University Celebration Committees as Golden Jubilee, Workshops, National Youth Festival, Sports Events, Disaster management, National Management, Convocation etc. Shivaji University, Kolhapur.
13. Various University Level Committees constituted by Vice Chancellor and Director, BCUD, Shivaji University, Kolhapur as LIC, Staff Selection etc.

Other Responsibilities at University:

1. **Curriculum Development:** Member, Syllabus Formation/Revision Committee in Chemistry, Industrial Chemistry, Applied Chemistry, Nanotechnology.
2. **University Examination Related Work:** End semester examination work (paper setting etc), Examination/Evaluation responsibilities for internal/continuous assessment work, Examination work such as coordination, senior supervision etc.
3. **University Functions:** Member, organizing committees formed for Convocation and Foundation Day Celebration etc.

Association with other University / other examinations:

1. **Member**, Panel of Judges, Ph. D. Defense, Hanyang University, Seoul, **South Korea**.
2. **Referee**, Ph. D. Thesis of about 20 Universities and National Research Institutes in India.
3. **Member**, Research Committee, D. Y. Patil University, Kolhapur.
4. **Member**, Board of Examiners, and Examiner at Gulbarga University; Karnataka State Women's University, Bijapur; Kuvempu University, Shankargatta; Rani Chennamma University, Belgaum etc.
5. **Observer**, Maharashtra State Eligibility Test for Lectureship (SET), Pune and AIPMT / NEET Examination, CBSE, Board, New Delhi.

Life Membership of Professional Bodies (India):

1. Society for Materials Chemistry (SMC), BARC, Mumbai.
2. Indian Science Congress Association (ISCA), Kolkata.
3. Indian Association of Nuclear Chemists and Allied Scientists (IANCAS), BARC, Mumbai.
4. Indian Society of Analytical Scientists (ISAS), BARC, Mumbai.
5. Association of Separation Scientists and Technologists (ASSET), BARC, Mumbai.
6. Indian Council of Chemists (ICC), Agra.
7. Fellow, Indian Chemical Society (ICS), Kolkata.

Research Group: Ph. D. students

Alumni's: (<i>bracket indicates subsequent position</i>)	
Umadevi Ghorpade (<i>PDF, South Korea and Ireland</i>)	Madagonda Vadiyar (<i>PDF, Canada</i>)
Santosh Patil (<i>PDF, South Korea</i>)	Ashish Sartape (<i>Assistant Professor</i>)
Prathmesh Salvi (<i>Research Scientist, Reliance Industries Limited, Mumbai</i>)	Sagar Utture (<i>Manager Analytical, PS-Food, TUV SUD South Asia Pvt. Ltd. Bangalore</i>)
Aniruddha Mandhare (<i>Assistant Professor</i>)	Dattatrya Pawar (<i>Assistant Professor</i>)
Rupali Patil	Bharat Pawar (<i>Assistant Professor</i>)
Bharati Pawar	Dipak Awale (<i>Assistant Professor</i>)
Gurupad Kore (<i>Associate Professor</i>)	Anita Ghare (<i>Assistant Professor</i>)
Sandip Patil (<i>R&D Scientist, Pharmaceutical Industry</i>)	Sagar Bhise (<i>Assistant Professor</i>)
Vidya Jadhav	
Currently Working:	
Suryakant Patil	Shubhangi Bandgar
Pramod Kumbhar	Dattatray Narale
Rachana Ghaware	