

## **Prof. Dr. Kolekar Sanjay Subrao**

Senior Professor

Department of Chemistry

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### **ACADEMIC EXPERIENCE: 31 years**

#### **Present Academic Position:**

- **Department of Chemistry, Shivaji University, Kolhapur**  
Senior Professor                      2020 (since October)

#### **Previous Academic Positions held:**

- **Department of Chemistry, Shivaji University, Kolhapur**  
Professor                                2009-2020  
Associate Professor                2005-2009
- **Department of Chemistry, Hanyang University, Seoul, South Korea**  
Visiting Professor                    2013  
Visiting Professor                    2012  
Visiting Professor                    2010
- **Department of Chemistry, Sangola College, Sangola (PAH Solapur University)**  
Reader                                    2003-2005  
Lecturer (Sr. Scale)                1998-2003  
Lecturer                                 1992-1998

### **ADMINISTRATIVE EXPERIENCE:**

#### **Shivaji University, Kolhapur:**

- Member            Academic Council
- Coordinator    University Industry Interaction Centre
- Coordinator    Department of Applied Chemistry
- Member        Standing Committee (special cell)
- Rector            Boys Hostel
- Coordinator    Certificate Course in Analytical Instrumentation

#### **Administrative Experience at Other Universities / Institutes:**

- Member, Recognition Committee (Inorganic Chemistry), Goa University, Goa, 2022-2025
- Research and Recognition Committee (Chemistry), Punyashlok Ahilyadevi Holkar Solapur University, Solapur, Maharashtra, since 2018.
- Member, Academic and Administrative Audit (AAA) Committee, Punyashlok Ahilyadevi Holkar Solapur University, Solapur, Maharashtra, 2022.
- Member, Board of Examination (Chemistry), Rani Channama University, Belgavi, Karnataka, 2022.
- Coordinator, Steering Committee, National Assessment and Accreditation Council (NAAC), Sangola College, Sangola (PAH Solapur University, Solapur), 2003-2005.
- Head, Department of Chemistry, Sangola College, Sangola (PAH Solapur University, Solapur), Maharashtra, 1992-2003.

**Member on International Panel: European Research Council**

- **Member**, European Research Council and Scientific Expert, Ministry of Education, Universities and Research, Rome, Italy.  
*Section “Fundamental Research” and ‘Applied Research’.*  
*Register of Expert Peer-Review for the Scientific Evaluation of Italian Research (REPRISE), Ministry of Education, Universities and Research (MIUR), Rome, Italy. (MIUR.AOODGRIC.REGISTRO\_REPRISE.0005455.19-03-2018) since March 2018*

**Awards / Fellowship:**

- Basic Science Research University Grants Commission, New Delhi, India, 2021  
Mid-Career Award
- Brain Pool Fellow National Research Foundation (NRF), South Korea,  
Host University: Chonnam National University, Gwangju,  
South Korea, 2018
- 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](http://kportal.kipris.or.kr/kportal/search/total_search.do))

**RESEARCH PAPER AWARDS / RECOGNITIONS:**

- American Chemical Society ACS ‘Top Five’ Researcher, among the Indian Research Community for ‘*Making American Chemical Society Journals who are the most impactful in the Chemistry Field*’ 2020.  
ACS Applied Energy Materials, 2018, 1(2), 638–648  
  
‘Globally Top Cited ACS Articles amongst the Shivaji University published Articles with ACS Publication during 2017-20  
ACS Applied Materials & Interfaces, 2017, 9, 26016–26028  
ACS Applied Energy Materials, 2018, 1(2), 638–648  
  
ACS ‘Top 10 Most Read’ Paper, *Chemistry of Materials*, 2016, 28, 3308-3317
- Royal Society of Chemistry Cover Image, *Journal of Materials Chemistry A*, 2018, 6(45), 22566 - 22579  
  
Invited Feature Article, *Chemical Communications*, 2014, 50, 11258-11273  
  
Most Read Article, *CrystEngComm*, 2012, 14 (6), 1920 – 1924
- Indian Academy of Sciences / Springer Cover Image, *Bulletin of Materials Science*, 2019, 42(6), 263:1-10
- Renewable Energy Global Innovations, Canada Key Scientific Article contributing to the excellence in Energy research, 2015  
*Physical Chemistry Chemical Physics* 17 (2015) 19777-19788

<https://reginnovations.org/key-scientific-articles/wurtzite-czts-nanocrystals-and-phase-evolution-to-kesterite-thin-film-for-solar-energy-harvesting/>

- Science Direct ‘Science Direct Top 10’ most downloaded article 2011 and ‘Science Direct Top 25 Hottest Articles’ Comptes Rendus Chimie 2011, 14, 883–886  
  
‘Science Direct Top 25 Hottest Articles’ Comptes Rendus Chimie 2011, 14, 878–882  
  
‘Science Direct Top 25 Hottest Article’ Electrochimica Acta 2010, 55, 4057 – 4061  
  
‘Science Direct Top 25 Hottest Article’, Applied Surface Science 2010, 257, 1786 – 1791
- International Conference -American Canadian Conference for Academic Disciplines Best Paper Award, Ryerson University, Toronto, Canada, May 25, 2009
- World Gold Council, London Excellent Paper Award (with honorarium of £300), December 10, 2001

#### **REVIEWER of INTERNATIONAL JOURNALS:**

- Journals published by American Chemical Society, Royal Society of Chemistry, Nature, Elsevier, Springer, Wiley-VCH, Materials Society of Korea, American Scientific Publishers, Taylor and Francis etc.

#### **FORMAL TEACHING ACTIVITIES:**

- Topics in Inorganic Chemistry: energy conversion devices, energy storage devices, chemistry of inorganic materials, coordination chemistry, organometallic chemistry. Topics in Analytical Science: electroanalytical techniques, instrumentation techniques, separation science.

#### **RESEARCH ACTIVITIES:**

- **Research Topics:** Synthesis of ferrites, metal organic framework (MOF) nanostructures and their applications in supercapacitor and battery; synthesis of nanocrystals, colloidal quantum dots and their applications in water splitting; synthesis of materials for solar cell fabrication; design and synthesis of ionic liquids and their applications as electrolytes in supercapacitor; separation science etc.
- **Ph. D. Guidance:** 27 students (20 degree awarded, 2 thesis submitted, 5 working)
- **Research Project Funding: Rs. 1,57,31,000**
  - DAE-BRNS (2 projects) • CSIR (1 project) • BARC (1 project) • RGSTC (1 project)
  - UGC (4 major projects and 5 minor projects) • Shivaji University (1 minor project)

- **Research Publications: (Total= 133)** (Materials Science-76; Analytical Science - 57)  
**Cumulative Impact Factor: 563.316** (till June 2023)  
**Google Scholar Citation Index = 4713** (highest citations for a paper = 419); **h-index = 38, i10-index = 88**  
<https://scholar.google.com/citations?user=nX-3tE4AAAAJ&hl=en>  
**Scopus Citation Index = 3780** (highest citations for a paper = 320); **h-index = 35**  
<https://www.scopus.com/authid/detail.uri?authorId=6602913340>

Impact factor	24.319	10-15	8 to 10	6 to 8	5 to 6	4 to 5	3 to 4	2 to 3	1 to 2	< 1	ISSN
No. of papers	01	09	04	25	03	20	11	22	10	07	21

### Material Science:

#### 2023

1. Rational design of binder free NiFe<sub>2</sub>O<sub>4</sub>@CoFe<sub>2</sub>O<sub>4</sub> core-shell nanoflake arrays synthesized by chemical bath deposition for supercapacitor application. D.K. Narale, P.D. Kumbhar, R.R. Bhosale, R.C. Ghaware, K.D. Patil, J.H. Kim, **S.S. Kolekar**, Journal of Energy Storage, (2023) 66, 107477  
 DOI: <https://doi.org/10.1016/j.est.2023.107477> (Impact Factor **8.907**)
2. NiO@MXene nanocomposite as an anode with enhanced energy density for asymmetric supercapacitor. R.A. Chavan, G.P. Kamble, S.B. Dhavale, A.S. Rasal, **S.S. Kolekar**, J.Y. Chang, A.V. Ghule, ACS Energy & Fuels, (2023), 37 (6), 4658–4670 DOI: <https://doi.org/10.1021/acs.energyfuels.2c04206> (Impact Factor **4.654**)
3. Construction of waste chalk powder into mpg-C<sub>3</sub>N<sub>4</sub>-CaSO<sub>4</sub> as an efficient photocatalyst for dye degradation under UV-Vis light and sunlight. S.B. Shinde, S.R. Bhosale, N.B. Birajdar, A.H. Gore, G.B. Kolekar, **S.S. Kolekar**, A.D. Mandake, P.V. Anbhule. Langmuir (2023) 39(18) 6324–6336 DOI: <https://doi.org/10.1021/acs.langmuir.2c03362> (Impact factor: **4.331**)
4. Recent progress on functional metal-organic framework for supercapacitive energy storage systems. R. Bhosale, S. Bhosale, M. Vadiyar, C. Jambhale, K.W. Nam, **S. Kolekar**. Energy Technology (2023) *accepted* (Impact Factor **4.149**)
5. Thermodynamics of azo dye adsorption on a newly synthesized titania-doped silica aerogel by cogelation: A comparative investigation with silica aerogels and activated charcoal. P.D. Sarvalkar, A.S. Vadanagekar, O.S. Karvekar, P.D. Kumbhar, S.S. Terdale, A.S. Thounaojam, **S.S. Kolekar**, R.S. Vhatkar, P.S. Patil, K.K. Sharma, ACS Omega, (2023), 8, 13285–13299  
 DOI: <https://doi.org/10.1021/acsomega.3c00552> (Impact factor: **4.132**)
6. Design and development of porous nanorods-based nickel-metalorganic framework (Ni-MOF) for high-performance supercapacitor application. R. Bhosale, S. Bhosale, P. Kumbhar, D. Narale, R. Ghaware, C. Jambhale, **S. Kolekar**. New Journal of Chemistry, (2023), 47, 6749-6758. DOI: <https://doi.org/10.1039/D3NJ00456B> (Impact factor: **3.925**)
7. Template free synthesis of mesoporous carbon from fire cracker waste and designing of ZnO-mesoporous carbon photocatalyst for dye (MO) degradation. S.B. Shinde, S.D.

- Dhengale, O.S. Nille, S.S. Jadhav, A.H. Gore, T.R. Bhosale, N.B. Birajdar, **S.S. Kolekar**, G.B. Kolekar, P.V. Anbhule. *Inorganic Chemistry Communications* (2023), 147, 110242. DOI: <https://doi.org/10.1016/j.inoche.2022.110242> (Impact Factor **3.428**)
8. Effect of small change in reaction conditions on the size of monoclinic BiVO<sub>4</sub> nanoparticles and their photocatalytic abilities. R. Ghaware, P. Sanadi., D. Narale, R. Bhosale, K. Patil, J.H. Kim, **S. Kolekar**. *Chemistry Select* (2023), *in press* DOI: [10.1002/slct.202301320](https://doi.org/10.1002/slct.202301320) (Impact Factor **2.307**)
9. Recent trends in synthetic top-down approach for mesoporous carbon: A seminal review S.R. Bhosale, R.R. Bhosale, K.S. Jagadhane, A.H. Gore, G.B. Kolekar, **S.S. Kolekar**, P.V. Anbhule. *Journal of Materials NanoScience*, (2023) 10(1), 601.

## 2022

10. Enhanced electrocatalytic activity of a layered triple hydroxide (LTH) by modulating the electronic structure and active sites for efficient and stable urea electrolysis. K. Patil, P. Babar, H. Bae, E. Jo, J.S. Jang, P. Bhoite, **S. Kolekar**, J.H. Kim. *Sustainable Energy & Fuels*, (2022), 6, 474-483. DOI: <https://doi.org/10.1039/D1SE01478A> (Impact Factor **6.813**)
11. Facile synthesis of flower-like Bi<sub>2</sub>O<sub>3</sub> as an efficient electrode for high performance asymmetric supercapacitor. S.A. Mane, A.A. Kashale, G.P. Kamble, **S.S. Kolekar**, S.D. Dhas, M.D. Patil, A.V. Moholkar, B.R. Sathe, A.V. Ghule. *Journal of Alloys and Compounds* (2022) 926, 166722 (1-11). DOI: <https://doi.org/10.1016/j.jallcom.2022.166722> (Impact Factor **6.371**)
12. Structure-engineering of core-shell ZnCo<sub>2</sub>O<sub>4</sub>@NiO composites for high-performance asymmetric supercapacitors. G.P. Kamble, A.S. Rasal, J.Y. Chang, **S.S. Kolekar**, S.N. Tayade, A.V. Ghule. *Nanoscale Advances*, (2022), 4, 814–823. DOI: <https://doi.org/10.1039/D1NA00851J> (Impact factor **5.598**)
13. Facile, cost effective and eco-friendly approach to synthesize bio-MnO<sub>2</sub> nanosphered thin film for all solid-state flexible asymmetric supercapacitor. Chavan R., Kamble G., Kashale A., Kolekar S., Sathe B., Ghule A., *Chemistry Select* (2022), 7, e202202166 (1-8) DOI: <https://doi.org/10.1002/slct.202202166> (Impact Factor **2.307**)

## 2021

14. Superfast ice crystal-assisted synthesis of NiFe<sub>2</sub>O<sub>4</sub> and ZnFe<sub>2</sub>O<sub>4</sub> nanostructures for flexible high-energy density asymmetric supercapacitors. S.B. Bandgar, M.M. Vadiyar, C.L. Jambhale, J.H. Kim, **S.S. Kolekar**. *Journal of Alloys and Compounds*, (2021), 853, 157129 (1-10). DOI: <https://doi.org/10.1016/j.jallcom.2020.157129> (Impact Factor **6.371**)
15. Construction of dual metal ferrite based core-shell nanostructures as low-cost multimetal electrode for boosting energy density of flexible asymmetric supercapattery. S.B. Bandgar, M.M. Vadiyar, C.L. Jambhale, Z. Ye, J.H. Kim, **S.S. Kolekar**. *Journal of Energy Storage* (2021), 36, 102379 (1-10). DOI: <https://doi.org/10.1016/j.est.2021.102379> (Impact Factor **8.907**)
16. CuCo<sub>2</sub>O<sub>4</sub> nanorods coated with CuO nanoneedles for supercapacitor applications. G.P. Kamble, A.S. Rasal, S.B. Gaikwad, V.S. Gurav, J.Y. Chang, **S.S. Kolekar**, Y.C. Ling, A.V. Ghule. *ACS Applied Nano Materials*, (2021), 4, 11, 12702–12711.

DOI: <https://doi.org/10.1021/acsanm.1c03284> (Impact Factor **6.140**)

17. Marigold micro-flower like  $\text{NiCo}_2\text{O}_4$  grown on flexible stainless-steel mesh as an electrode for supercapacitors. G.P. Kamble, A.A. Kashale, A.S. Rasal, S.A. Mane, R.A. Chavan, J.Y. Chang, Y.C. Ling, S.S. Kolekar, A.V. Ghule. RSC Advances, (2021), 11, 3666–3672. DOI: <https://doi.org/10.1039/D0RA09524A> (Impact Factor **4.036**)
18. Reflux temperature-dependent zinc cobaltite nanostructures for asymmetric supercapacitors. G.P. Kamble, A.A. Kashale, **S.S. Kolekar**, I-W.P. Chen, B.R. Sathe, A.V. Ghule, Journal of Materials Science: Materials in Electronics, (2021), 32, 5859–5869. DOI: <https://doi.org/10.1007/s10854-021-05306-w> (Impact Factor **2.779**)
19. Investigating the influence of reflux condensation reaction temperature on the growth of  $\text{FeCo}_2\text{O}_4$  thin film for flexible supercapacitor. G. Kamble, A. Kashale, A. Rasal, S. Dengale, S. Kolekar, J.Y. Chang, S.H. Han, A. Ghule. ChemistrySelect, (2021), 6 (8), 1838-1844. DOI: <https://doi.org/10.1002/slct.202004544> (Impact Factor **2.307**)

## 2020

20. Rotational reflux chemistry approach derived flat holey  $\text{CuFe}_2\text{O}_4$  nanosheets for supercapacitors application. S.B. Bandgar, M.M. Vadiyar, U.P. Suryawanshi, C.L. Jambhale, J.H. Kim, **S.S. Kolekar**. Materials Letters, (2020), 279, 128514 (1-4). DOI: <https://doi.org/10.1016/j.matlet.2020.128514> (Impact Factor **3.574**)

## 2019

21. Holey  $\text{C@ZnFe}_2\text{O}_4$  nanoflakes by carbon soot layer blasting approach for high performance supercapacitors. M.M. Vadiyar, S.B. Bandgar, **S.S. Kolekar**, J.Y. Chang, Y.C. Ling, Z. Ye, A.V. Ghule. ACS Applied Energy Materials, (2019), 2(9), 6693-6704. DOI: <https://doi.org/10.1021/acsaem.9b01195> (Impact Factor **6.959**)
22. A mesoporous nickel oxide nanosheet as an electrode material for supercapacitor application using 1-(2',3'-dihydroxypropyl)-3-methylimidazolium hydroxide ionic liquid electrolyte, S.C. Bhise, D.V. Awale, M.M. Vadiyar, S.K. Patil, U.V. Ghorpade, B.N. Kokare, J. H. Kim, **S.S. Kolekar**. Bulletin of Materials Science, (2019), 42(6) 263:1-10. DOI: <https://doi.org/10.1007/s12034-019-1961-7> (Impact Factor **1.878**)  
*[Featured on journal front cover]*
23. Binder-free synthesis of high quality nanocrystalline  $\text{ZnCo}_2\text{O}_4$  thin film electrodes for supercapacitor application. G.P. Kamble, A.A. Kashale, S.S. Dhanayat, **S.S. Kolekar**, A.V. Ghule, Bulletin of Materials Science, (2019), 42(6), 272:1-7. DOI: <https://doi.org/10.1007/s12034-019-1950-x> (Impact Factor **1.878**)
24. Supercapacitor application of 3-(3'-hydroxypropyl)-1,2-dimethylimidazolium chloride electrolyte using copper oxide synthesized by chemical bath deposition method. D.V. Awale, S.C. Bhise, S.K. Patil, **S.S. Kolekar**. Materials Today: Proceedings, (2019), 9, 184-192. DOI: <https://doi.org/10.1016/j.matpr.2019.02.151>

## 2018

25. Metal precursor dependent synthesis of  $\text{NiFe}_2\text{O}_4$  thin films for high-performance flexible symmetric supercapacitor. S.B. Bandgar, M.M. Vadiyar, Y.C. Ling, J.Y. Chang, S.H.

- Han, A.V. Ghule, **S.S. Kolekar**, ACS Applied Energy Materials, (2018), 1(2), 638–648. DOI: <https://doi.org/10.1021/acsaem.7b00163> (Impact Factor **6.959**)  
*[Featured as the 'Globally Top Cited ACS Articles amongst the Shivaji University published Articles with ACS Publication during 2017-20.*  
*Featured in the ACS 'Top Five' Researcher, among the Indian Research Community for 'Making American Chemical Society Journals who are the most impactful in the Chemistry Field' 2020]*
26. Unassisted visible solar water splitting with efficient photoelectrodes sensitized by quantum dots synthesized via an environmentally friendly and efficient eutectic solvent-mediated approach. U.V. Ghorpade, M.P. Suryawanshi, S.W. Shin, J. Kim, S.H. Kang, J.S. Ha, **S.S. Kolekar**, J.H. Kim. Journal of Materials Chemistry A, (2018), 6(45), 22566-22579. DOI: <https://doi.org/10.1039/C8TA05901B> (Impact Factor **14.511**)  
*[Featured on journal back cover]*
27. Eutectic solvent-mediated selective synthesis of Cu-Sb-S-based nanocrystals: Combined experimental and theoretical studies toward highly efficient water splitting. U.V. Ghorpade, M.P. Suryawanshi, S.W. Shin, X. Wang, E. Jo, H. Bae, K.S. Park, J.S. Ha, **S.S. Kolekar**, J.H. Kim. Journal of Materials Chemistry A, (2018), 6(40), 19798-19809. DOI: <https://doi.org/10.1039/C8TA07400C> (Impact Factor **14.511**)
28. Controlled synthesis of nanostructured nickel oxide thin film for supercapacitor application. S.C. Bhise, D.V. Awale, M.M. Vadiyar, S.K. Patil, B.N. Kokare, A.V. Ghule, **S.S. Kolekar**. Advanced Science Letters, (2018), 24, 5587–5592. DOI: <https://doi.org/10.1166/asl.2018.12155>
- 2017**
29. Anchoring ultrafine ZnFe<sub>2</sub>O<sub>4</sub>/C nanoparticles on 3D ZnFe<sub>2</sub>O<sub>4</sub> nano-flakes for boosting cycle stability and energy density of flexible asymmetric supercapacitor. M.M. Vadiyar, **S.S. Kolekar**, J.Y. Chang, Z. Ye, A.V. Ghule. ACS Applied Materials & Interfaces, (2017), 9, 26016–26028. DOI: <https://doi.org/10.1021/acsaem.7b06847>, (Impact Factor **10.383**)  
*[Featured as the 'Globally Top Cited ACS Articles amongst the Shivaji University published Articles with ACS Publication during 2017-20].*
30. One-pot in situ hydrothermal growth of BiVO<sub>4</sub>/Ag/rGO hybrid architectures for solar water splitting and environmental remediation. S.S. Patil, M.G. Mali, M.A. Hassan, D.R. Patil, **S.S. Kolekar**, S.W. Ryu. Nature Scientific Reports, (2017), 7, Article number: 8404 1-12. DOI: <https://doi.org/10.1038/s41598-017-08912-z> (Impact Factor **4.996**)
31. Binder free 2D aligned efficient MnO<sub>2</sub> micro flowers as stable electrodes for symmetric supercapacitor applications. A.A. Kashale, M.M. Vadiyar, **S.S. Kolekar**, B.R. Sathe, J.Y. Chang, H.N. Dhakal, A.V. Ghule. RSC Advances, (2017), 7, 36886–36894. DOI: <https://doi.org/10.1039/C7RA05655A> (Impact Factor **4.036**)
32. 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. M. Kariem, M. Yawera, M. Kumar, H.N. Sheikh, P. Sood, **S.S. Kolekar**. Journal of Solid State Chemistry, (2017), 255, 61–69. DOI: <https://doi.org/10.1016/j.jssc.2017.08.001> (Impact Factor **3.656**)

33. Binder free chemical synthesis of ZnFe<sub>2</sub>O<sub>4</sub> thin films for asymmetric supercapacitor with improved performance. M.M. Vadiyar, **S.S. Kolekar**, N.G. Deshpande J.Y. Chang, A.A. Kashale, A.V. Ghule, *Ionics*, (2017), 23, 741–749.  
DOI: <https://doi.org/10.1007/s11581-016-1833-8> (Impact Factor **2.961**)
34. Hydroxy functionalized ionic liquids as promising electrolytes for supercapacitor study of α-Fe<sub>2</sub>O<sub>3</sub> thin films. S.K. Patil, M.M. Vadiyar, S.C. Bhise, S.A. Patil, D.V. Awale, U.V. Ghorpade, J.H. Kim, A.V. Ghule, **S.S. Kolekar**, *Journal of Materials Science: Materials in Electronics*, (2017), 28, 11738–11748.  
DOI: <https://doi.org/10.1007/s10854-017-6978-3> (Impact Factor **2.779**)
35. Facile synthesis of CuO nanosheets electrode for supercapacitor with long cyclic stability in novel methyl imidazole based ionic liquid electrolyte. S.C. Bhise, D.V. Awale, M.M. Vadiyar, S.K. Patil, B.N. Kokare, **S.S. Kolekar**. *Journal of Solid State Electrochemistry*, (2017), 21, 2585–2591.  
DOI: <https://doi.org/10.1007/s10008-016-3490-2> (Impact Factor **2.747**)
36. Amide functionalized ionic liquid as facile fluorescent probe for detection of nitrophenolic compounds. S.K. Patil, D.V. Awale, M.M. Vadiyar, S.A. Patil, S.C. Bhise, A.H. Gore, G.B. Kolekar, J.H. Kim, **S.S. Kolekar**. *ChemistrySelect*, (2017), 2(14), 4124–4130. DOI: <https://doi.org/10.1002/slct.201700611> (Impact Factor **2.307**)

## 2016

37. Confinement of Ag<sub>3</sub>PO<sub>4</sub> nanoparticles supported by surface plasmon resonance of Ag in glass: Efficient nanoscale photocatalyst for solar H<sub>2</sub> production from waste H<sub>2</sub>S. S.S. Patil, D.R. Patil, S.K. Apte, M.V. Kulkarni, J.D. Ambekar, C.J. Park, S.W. Gosavi, **S.S. Kolekar**, B.B. Kale. *Applied Catalysis B: Environmental*, (2016), 190, 75–84.  
DOI: <http://dx.doi.org/10.1016/j.apcatb.2016.02.068> (Impact Factor **24.319**)
38. Ag:BiVO<sub>4</sub> dendritic hybrid-architecture for high energy density symmetric supercapacitors. S.S. Patil, D.P. Dubal, M.S. Tamboli, J.D. Ambekar, **S.S. Kolekar**, P. Gomez-Romero, B.B. Kale, D.R. Patil. *Journal of Materials Chemistry A*, (2016), 4, 7580-7584. DOI: <https://doi.org/10.1039/C6TA01980C> (Impact Factor **14.511**)
39. Low cost flexible 3-D aligned and cross-linked efficient ZnFe<sub>2</sub>O<sub>4</sub> nano-flakes electrode on stainless steel mesh for symmetric supercapacitor. M.M. Vadiyar, S.C. Bhise, **S.S. Kolekar**, J.Y. Chang, K.S. Ghule, A.V. Ghule. *Journal of Materials Chemistry A*. (2016), 4, 3504–3512. DOI: <https://doi.org/10.1039/C5TA09022A> (Impact Factor **14.511**)
40. Graphene-wrapped Ag<sub>3</sub>PO<sub>4</sub>/LaCO<sub>3</sub>OH heterostructures for water purification under visible light. S.S. Patil, M.G. Mali, A. Roy, M.S. Tamboli, V.G. Deonikar, D.R. Patil, M.V. Kulkarni, S.S. Al-Deyab, S.S. Yoon, **S.S. Kolekar**, B.B. Kale. *Journal of Energy Chemistry*, (2016), 25, 845-853.  
DOI: <https://doi.org/10.1016/j.jechem.2016.05.004> (Impact Factor **13.599**)
41. Colloidal wurtzite Cu<sub>2</sub>SnS<sub>3</sub> (CTS) nanocrystals and their applications in solar cells. U.V. Ghorpade, M.P. Suryawanshi, S.W. Shin, I. Kim, S.K. Ahn, J.H. Yun, C. Jeong, **S.S. Kolekar**, J.H. Kim. *Chemistry of Materials*, (2016), 28, 3308-3317.



DOI: <https://doi.org/10.1021/acs.chemmater.6b00176>, (Impact Factor **10.508**)  
*[Featured as the ACS 'Top 10 Most Read' Paper]*

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**Conference/Symposia/Workshop Presentations:**

**International** 23 (Canada, South Korea and India); **National** 21

**International**

1. Ice-template assisted synthesis of metal ferrites for supercapacitor application. International Conference on "Advancements in Renewable Energy", Swami Ramanand Teerth Marathwada University, Nanded, **India**, January 10-11, **2020**.
2. 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**.
3. 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, **Korea**, August 24-25, **2018**.
4. CTS nanocrystal synthesis and their applications in solar cells. *Asia- Pacific Kesterite Workshop 2018*, Optoelectronics Convergence Research Center, Chonnam National University, **Korea**, August 21, **2018**.

5. 7<sup>th</sup> Sungkyun International Solar Forum (SISF), Sungkyunkwan University (SKKU), Seoul, **South Korea**, June 27 – 29, **2018**.
6. **a.** Chemical synthesis of ZnO@NiFe<sub>2</sub>O<sub>4</sub> heterostructure thin films for supercapacitor applications. **b.** Analytical application of 1-(2', 4'-dinitroaminophenyl)-4,4,6-trimethyl-1,4-dihydropyrimidine-2-thiol for extractive spectrophotometric determination of vanadium(V): analysis of alloys and soil samples. **c.** Ionic liquids assisted SILAR deposited flexible Fe<sub>2</sub>O<sub>3</sub> thin films for supercapacitor application. **d.** Synthesis of Fe<sub>3</sub>O<sub>4</sub>@PPAC nanocomposite for improved adsorption of toxic Cr(VI) from aqueous solution.  
*International Conference on Advances in Chemical Sciences (IC-ACS 2018)*, Department of Chemistry, Shivaji University, Kolhapur, India, February 1-3, **2018**.
7. Electrochemical study of copper oxide using dimethylimidazolium based ionic liquid.  
*3<sup>rd</sup> International Conference on Innovative Research in Science and Technology (ICIRST – 2017)*, GKG College, Kolhapur, INDIA, November 7-8, **2017**.
8. Thiocyanide functionalized ionic liquid electrolytes for the photoelectrochemical study of CdSe thin films.  
*2<sup>nd</sup> 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**.
9. **a.** Facile hydrothermal synthesis heterostructured Ag-ZnO with enhanced photocatalytic activity. **b.** Nickel zinc ferrite thin films prepared by soft solution method for supercapacitor application.  
*International Conference on Innovations in Energy, Polymer & Environmental Sciences (IEPES-2014)*, Yashwantrao Chavan Institute of Science, Satara, **India**, January 10-12, **2014**.
10. *International Workshop on Next Generation Compound Thin Film Solar Cells 2013*. Department of Materials Science and Engineering, Chonnam National University, Gwangju, **South Korea**, November 22, **2013**.
11. Chemical synthesis, characterization and supercapacitors application of crystalline SnO<sub>2</sub> thin films.  
*International Conference Emerging Horizons in Biochemical Sciences & Nanomaterials (EHBCSN-2013)*, Shri Shivaji Mahavidyalaya, Barshi, **India**, November 28-29, **2013**.
12. 2D Nanostructured inorganic solids-emerging nanomaterials beyond graphene.  
*CINBM International Symposium*, Ewha Womans University, Seoul, **South Korea** October 16, **2012**.
13. **a.** Electrodeposition of honey comb like nanoporous ZnO by [ADPPY][OH] ionic liquid – one move towards sustainable technology. **b.** One pot synthesis of PVA capped silver nanoparticles, characterization and antimicrobial behaviour.  
*1<sup>st</sup> International Conference on Physics of Materials and Materials based Device Fabrication (ICPM-MDF-2012)*, Department of Physics, Shivaji University, Kolhapur, **India** January 17-19, **2012**.
14. Ionic liquid stabilized silver nanoparticles and their biocidal activity.  
*International Conference on Nanoscience and Nanotechnology (ICNN-2011)*, Swami Ramanand Teerth Marathwada University, Nanded, **India** January 11 -13, **2011**.
15. Synthesis of nickel-zinc ferrite thin films by chemical solution method for electrochemical capacitor application.  
*3<sup>rd</sup> International Symposium on Materials Chemistry, (ISMC-2010)*, Chemistry Division, Bhabha Atomic Research Centre (BARC), Trombay, Mumbai, **India** December 7 - 11, **2010**.

16. **a.** Synthesis, characterization and application of nanosilver. **b.** Electrosynthesis of porous nanocrystalline manganese oxide thin films for supercapacitor application.  
*International Conference on Nano Science and Nano Technology (ICNST 2010)*, Gwangju Institute of Science and Technology, Gwangju (GIST), **Korea** November 8 - 9, **2010**.
17. Effect of annealing atmosphere on the properties of chemically deposited  $\text{Cu}_2\text{ZnSnS}_4$  (CZTS) thin films.  
*Renewable Energy 2010 (RE2010)* Pacifico Yokohama, Yokohama, **Japan**, June 27 – July 2, **2010**.
18. SEM study of nanocrystalline  $\text{Ni}_{10.5}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4$  thin films synthesized by aqueous solution method with chemical bath deposition.  
*International Conference on Advances in Electron Microscopy and Related Techniques (EMSI-2010)*, BARC, Mumbai, **India**, March 8 - 10, **2010**.
19. **a.** Synthesis, characterization and biological studies of silver nanoparticles. **b.** Synthesis of nanocrystalline  $\text{NiZnFe}_2\text{O}_4$  thin films using chemical bath deposition.  
*International Conference on Emerging Trends in Chemistry (ETIC-2010)*, Department of Chemistry, University of Pune, **India**, January 5 - 7, **2010**.
20. Effect of complexing agent on the properties of electrochemically deposited  $\text{Cu}_2\text{ZnSnS}_4$  (CZTS) thin films for photovoltaic application.  
*International Conference on Nano Science and Nano Technology 2009 (GJ-NST 2009)*. Gwangju-Jeonnang Nano Science and Technology Union, Mokpo National University, JeollaNam - Do, **Korea**, November 5 - 6, **2009**.
21. **a.** Selective extraction and photometric determination of platinum(IV) with 4-(2-furalideneimino)-3-methyl-5-mercapto-1,2,4-triazole in *n*-butanol and its applications to real samples. **b.** Study on extraction of lanthanum(III) by 2-octylamino pyridine from weak organic acid media and its separation from rare earth elements.  
*American Canadian Conference for Academic Disciplines*, Ryerson University, Toronto, Ontario, **Canada**, May 25 - 28, **2009**.
22. Extractive separation and determination of cerium(IV) with high molecular weight amine into xylene.  
*International conference on nanomaterials and applications (ICNAMA-2008)*, Shivaji University, Kolhapur, **India**, December 9 - 11, **2008**.
23. Selective liquid-liquid extraction of platinum(IV) from ascorbate media by *N*-*n*- octylaniline: analysis of real samples.  
*International Symposium on Solvent Extraction*, Regional Research Laboratory (CSIR), Bhubaneswar, **India**, September 26 - 27, **2002**.

### National

1. **a.** Synthesis of  $\text{BiVO}_4$  as an efficient visible light active photocatalyst for environmental remediation. **b.** Synthesis and characterization of nickel-based metal-organic framework via reflux condensation technique. **c.** Rational design of binder free  $\text{NiFe}_2\text{O}_4$  @  $\text{CoFe}_2\text{O}_4$  core – shell nanoflake arrays synthesized by chemical bath deposition for supercapacitor applications.  
*National Conference on 'Impact of Chemistry and Biology to the Society and Industry (ICBSI)'*, Kuvempu University, **Shivamogga**, May 20-21, **2022**.
2. Synthesis, characterization and application of  $\text{NiCo}_2\text{O}_4$  nanoflakes electrodes for supercapacitor.  
*National Conference on "Recent Advances in Chemical Sciences" (RACS – 2022)*, School of Chemical Sciences, Punyashlok Ahilyadevi Holkar Solapur University, **Solapur**, April 28, **2022**.

3. **a.** Ionic liquids as promising electrolytes for high performance ZnFe<sub>2</sub>O<sub>4</sub> thin film based supercapacitor. **b.** Novel dendritic BiVO<sub>4</sub> nanostructured thin film photoanodes for solar water splitting. **c.** Supercapacitor study of α-Fe<sub>2</sub>O<sub>3</sub> thin films in hydroxy functionalized ionic liquid as electrolyte. **d.** Flexible and stable supercapacitor based on mechanochemically deposited NiFe<sub>2</sub>O<sub>4</sub> thin films. **e.** Highly enhanced adsorption of cobalt ions on *Pongamia pinnata* pod based activated carbon.  
*National Conference on Innovative Research in Chemical Sciences (IRCS-2017)* Department of Chemistry, Shivaji University, **Kolhapur**, February 1-2, **2017**.
4. 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**.
5. High-quality spinel zinc ferrite (ZnFe<sub>2</sub>O<sub>4</sub>) thin films with porous nano - flakes morphology for electrochemical energy storage. **b.** Sol-gel derived nanostructured cobalt oxide thin film for pseudocapacitor.  
*National Symposium on Current Trends in Chemical and Nano Science (CTCNS-2014)*, Department of Chemistry, Shivaji University, **Kolhapur**, January 17-18, **2014**.
6. Facile development of supercapacitor using graphene oxide and ionic liquids.  
*National Seminar on Recent Advances in Synthetic Chemistry and Nano-materials -2012 (RASCN- 2012)*, Department of Chemistry, Shivaji University, **Kolhapur**, January 21- 22, **2012**.
7. **a.** Brønsted acidic ionic liquids (BAILs) promoted cyclocondensation reactions of the formation of 1,8-dioxo-octahydroxanthenes. **b.** Task-specific ionic liquid (TSIL)- A novel media for synthesis of silver nanoparticles. **c.** Liquid-liquid extractive separation studies of europium(III) using liquid anion exchanger. **e.** Removal of malachite green dye from aqueous solution using fruit shell waste. **f.** Adsorption of chromium(VI) from aqueous solution by *Limonia acidissima* (wood apple) shell activated carbon.  
*National Symposium on "Advances in Synthetic Methodologies and New Materials" (ASMNM-2011)*, Department of Chemistry, Shivaji University, **Kolhapur**, January 21 - 23, **2011**.
8. **a.** Synthesis and biological applications of silver nanoparticles. **b.** Studies on chemical bath deposited nanocrystalline PbS thin films.  
*National Seminar on Advanced Materials (NSAM-2010)*, Department of Physics, Shivaji University, **Kolhapur**, March 19 - 20, **2010**.
9. Studies on extraction behaviour of samarium(III) from salicylate media by using 2- octylaminopyridine.  
*Emerging Trends in Separation Science and Technology (SESTEC- 2010)*, Indira Gandhi Centre for Atomic Research (IGCAR), **Kalpakkam**, March 1 - 4, **2010**.
10. The synergistic liquid-liquid extraction and spectrophotometric determination of copper(II) from basic solution by 1-(2',4'-dinitro aminophenyl)-4, 4, 6- trimethyl - 1, 4 dihydro-pyrimidine -2-thiol in the presence of pyridine.  
*National Seminar on 'Advanced Synthetic Methodologies and Functional Materials' (ASMFM-2009)*, Shivaji University, **Kolhapur**, December 23 - 24, **2009**.
11. Nanocrystalline zinc doped nickel ferrite thin films using chemical deposition route.  
*National Conference on Chemistry and Molecular Nanotechnology for Industry and Society (NCMNIS-2009)*, Kuvempu University, **Shimoga**, January 16 - 17, **2009**.
12. Solvent extraction of lanthanum(III) by N-*n*-octylaniline from salicylate media.  
DAE- BRNS Biennial Symposium on *Emerging Trends in Separation Science and Technology (SESTEC 2008)*, Department of Chemistry, University of Delhi, **Delhi**, March 12 -14, **2008**.

13. Analytical separation of yttrium(III) with N-n-octylaniline.  
National Seminar on *Synthesis of New Materials for Industrial Applications*, Department of Chemistry, Shivaji University, **Kolhapur**, February 1 - 2, **2008**.
14. Liquid-liquid extraction of gallium(III) from acid solution using 2-octylaminopyridine as an extractant.  
*Royal Society of Chemistry, West India Section, Students Symposium - 2005*, National Chemical Laboratory, **Pune**, November 25 - 26, **2005**.
15. Nanomaterials in separation science.  
*National Conference on Advanced Characterization Techniques on Nanomaterials*, Institute Instrumentation Centre, Indian Institute of Technology, **Roorkee**, August 24 -26, **2005**.
16. Investigation of the ion-pair formation of palladium(II) with N-n-octylaniline by solvent extraction from salicylate media.  
*22<sup>nd</sup> National Conference, Indian Council of Chemists*, Indian Institute of Technology, **Roorkee**, October 17 - 19, **2003**.
17. Solvent extraction separation of rhodium(III) with N-n-octylaniline as an extractant.  
*20<sup>th</sup> National Conference, Indian Council of Chemists*, University of Mysore, **Mysore**, December 22 - 24, **2001**.
18. Solvent extraction separation of gold(III) with liquid anion exchanger in malonate media.  
*19<sup>th</sup> National Conference, Indian Council of Chemists*, Kuvempu University, **Shimoga**, December 27 - 29, **2000**.
19. Extractive spectrophotometric determination of thallium(II) with pyrimidine-2-thiol.  
*18<sup>th</sup> National Conference, Indian Council of Chemists*, North Maharashtra University, **Jalgaon**, December 27 - 29, **1999**.
20. Solvent extraction and spectrophotometric determination of osmium(VIII) with pyrimidinethiol.  
*15<sup>th</sup> National Conference, Indian Council of Chemists*, Dr. Babasaheb Ambedkar Marathwada University, **Aurangabad**, October 24 - 26, **1996**.
21. Solvent extraction and spectrophotometric determination of palladium(II) with 1-(2',3'- dichlorophenyl) 4, 4, 6 -trimethyl(1H 4H)-2-pyrimidinethiol: analysis of alloys.  
*National Conference on Applications of Solvent Extraction in Chemistry and Industry*, Shivaji University, Kolhapur, March 6 - 8, **1996**.

**Conference/Symposia/Workshop Attended:**

1. Workshop on “*Next Two Decades of Chemical Sciences & Technology*”, Organized by Maharashtra Academy of Sciences, National Chemical Laboratory, Pune and University of Pune, at NCL, **Pune** September 23, **2011**.
2. *Chemistry of Functional Materials 2011(CFM-2011)*, Organized by Indian Institute of Technology Bombay, Mumbai and International Centre of Materials Science (ICMS), Jawaharlal Nehru Centre for Advanced Research (JNCASR), Bangalore, at **Goa**, August 12-14, **2011**.
3. *RSC-CSIR Chemical Sciences Innovation Symposium*, National Chemical Laboratory, **Pune**, November 30, **2009**.
4. *National Seminar on Materials for Advanced Technologies (NASMAT – 2006)* Department of Physics, Shivaji University, **Kolhapur**, January 23 - 25, **2006**.
5. *National Symposium on Frontiers in Organic Chemistry*, Shivaji University, **Kolhapur**, February 7 - 8, **2002**.
6. *Workshop in Chemistry*, D. B. F. Dayanand College of Arts and Science, **Solapur**, September 29, **1996**.
7. *Seminar in Chemistry*, Shivaji University, **Kolhapur**, February 24-26, **1994**.

8. UGC sponsored COSIP Seminar, K. B. P. Mahavidyalaya, **Pandharpur**, October 2-3, **1993**.

**Chairman- Scientific Session in Conference:** International (2); National (5)

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

**Refresher/Orientation/Training Programme Participation:**

Chemistry / Material Science Refresher Course / Orientation Programme: 03

Schools and Workshops : 05

**Organization of Conference / Symposium / Refresher Course (National Level) as**

Co-ordinator / Liaison Officer / Convener: 09

**Administrative Responsibilities:** (*few selected*)

1. 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.
2. Departmental Committees, Department of Chemistry, Shivaji University, Kolhapur, 2006-2007 and 2019-2020.
3. Administrative Excellence Award Committee, Shivaji University, Kolhapur, 2014.
4. Panel of Expert Guides for "AVISHKAR 2014-15", Shivaji University, Kolhapur 2014.
5. Entrance Examination Committee, Shivaji University, Kolhapur 2014.
6. Executive Committee, Yashwantrao Chavan School of Rural Development, Shivaji University, Kolhapur since 2013.
7. Departmental Research Committee, Department of Agrochemicals and Pest Management, Shivaji University, Kolhapur 2010-2012.
8. Editorial Board, *Shivsandesh*, an E-Magazine, Shivaji University, Kolhapur, 2008 -2014.
9. Golden Jubilee Celebration Committees, Shivaji University, Kolhapur, 2011-2012.
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. Member, 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.
14. Coordinator, College Science Improvement Programme (COSIP), Sangola College, Sangola, 2002-2005.
15. Coordinator, Maharashtra Talent Search Examination (MTSE), Sangola Taluka, Sangola, conducted by Wadia College, Pune, 1995-2005.

**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 above 25 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, Vijayapura; 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.

**Community Associate: American Chemical Society, 2022 - Present****Life Membership of Professional Bodies (India):**

1. Society for Materials Chemistry (SMC), BARC, Mumbai (*LM-477*).
2. Indian Science Congress Association (ISCA), Kolkata. (*L-14835*).
3. Indian Association of Nuclear Chemists and Allied Scientists (IANCAS), BARC, Mumbai (*LM-1041*).
4. Indian Society of Analytical Scientists (ISAS), BARC, Mumbai (*LM-1894*).
5. Association of Separation Scientists and Technologists (ASSET), BARC, Mumbai (*LM-007*).
6. Indian Council of Chemists (ICC), Agra (*LF-873*).
7. Fellow, Indian Chemical Society (ICS), Kolkata (*F-4564*).

**Students Advised:****Former Ph. D. students:**

Ashish Sartape, conferred December 2011, currently Assistant Professor

Aniruddha Mandhare, conferred December 2011

Prathmesh Salvi, conferred December 2011, Scientist, R & D Centre, Reliance Industries Limited, Mumbai, currently - Scientist, United Phosphorus Limited, Mumbai

Dattatrya Pawar, conferred June 2012, currently Assistant Professor

Sagar Utture, conferred August 2012, currently Manager Analytical, PS-Food, TÜV SÜD South Asia Pvt. Ltd. Bangalore

Rupali Patil, conferred March 2013, Start-up company

Bharat Pawar, conferred March 2013, currently Assistant Professor

Bharati Pawar, conferred January 2015

Santosh Patil, conferred April 2016, completed **PDF in South Korea** at Chonnam National University, **Gwangju**; Pohang University of Science and Technology, **Pohang**; Kyungpook National University, **Daegu**; Inha University, **Incheon**; FEMTO-ST Institute Besancon, 25000 **France**; currently **Scientist**, C-MET **India**.

Madagonda Vadiyar, conferred January 2017, completed **PDF** at Laurentian University, Ontario and Concordia University, Quebec, **Canada**, currently Korean Research Fellow (**KRF**), Dongguk University, Seoul, **South Korea**

Umadevi Ghorpade, conferred February 2017, completed PDF at Chonnam National University, **South Korea** and University of Limerick, Limerick, **Ireland**; currently PDF, University of New South Wales (UNSW), Sydney, **Australia**

Dipak Awale, conferred December 2017, currently Associate Professor

Sagar Bhise, conferred October 2018, currently Assistant Professor

Gurupad Kore, conferred October 2018, currently Associate Professor

Sandip Patil, conferred October 2018, currently Assistant Professor

Anita Ghare, conferred November 2018, currently Assistant Professor

Vidya Jadhav, conferred September 2019, currently Assistant Professor

Shubhangi Bandgar, conferred April 2021, currently Assistant Professor

Suryakant Patil, conferred June 2021, currently Assistant Professor

Pramod Kumbhar, conferred March 2023, currently Assistant Professor

**Ph. D. thesis submitted:**

Dattarya Narale, thesis submitted June 2023

Rakhee Bhosale, thesis submitted June 2023

**Current Ph. D. students:**

Rachana Ghaware, started July 2018

Prashant Sanadi, started July 2019

Omkar Kulkarni, started July 2021

Tabbu Shaikh, started January 2023

Sandip Pise, started January 2023

**Collaboration with Scientifically Renowned Personalities:**

Scientists from renowned universities / institutes have always extended scientific support, guidance and also offered great human values which always helped me to contribute to the science. Some of them are included here,

- ❖ **Prof. Han S. H.**, Department of Chemistry, Hanyang University, Seoul, **South Korea**
- ❖ **Prof. Kim J. H.**, Department of Materials Science and Engineering, Chonnam National University, Gwangju, **South Korea**
- ❖ **Prof. Yoon S. S.**, Solar Cell & Aerosol Science Laboratory, Mechanical Engineering Department, Korea University, Seoul, **South Korea**
- ❖ **Prof. Nam K. W.**, Department of Energy and Materials Engineering, Dongguk University, Seoul, **South Korea**
- ❖ **Prof. Zhibin Ye**, Department of Chemical and Materials Engineering, Concordia University, Montreal, Quebec, **Canada**
- ❖ **Dr. Wadgaonkar P. P.**, National Chemical Laboratory, Council of Scientific and Industrial Research, **India**
- ❖ **Prof. Mane R. S.**, School of Physical Science, S. R. T. M. University, Nanded, **India**

**Personal Information and Educational Qualification:**

**Date of Birth:** June 2, 1970

**Education:**

- B. Sc. Chemistry Shivaji University, Kolhapur 1990
- M. Sc. Chemistry Shivaji University, Kolhapur 1992
- Ph. D. Chemistry Shivaji University, Kolhapur 2003