

1. Personal Information:

Name of Faculty : Dr. Sachin Vijay Otari
Designation : Assistant Professor
Department : Department of Microbiology
Date of Appointment : 20/05/2023
Area of Specialization : Microbiology, Biotechnology, Nanobiotechnology
Courses taught : B.Sc., M.Sc.
Total teaching experience : 0 Years 7 Months

Address for Correspondence: Shivshrushti Colony, Banvadi, Karad

Date of Birth : 16/09/1985
Marital Status : Married
E-Mail : sachinotari169@gmail.com
Language Proficiency : Marathi, English, Hindi
Research Profile Links : Scopus, ORCID and Google Scholar Links

Scopus ID : <https://www.scopus.com/authid/detail.uri?authorId=54896474700>

ORCID : <https://orcid.org/my-orcid?orcid=0000-0002-9226-186X>

Google Scholar: https://scholar.google.com/citations?hl=en&user=7miodakAAAAJ&view_op=list_works

ResearchGate : <https://www.researchgate.net/profile/Sachin-Otari-2>

Vidwan ID : <https://vidwan.inflibnet.ac.in/profile/400108>

2. Academic Qualification: M.Sc., M.Phil., Ph.D.

Course	Board/University	Year of Passing	Percentage	Division	Subjects
Ph.D.	D.Y. Patil University, Kolhapur	2014	-	-	Microbiology
M.Sc.	Shivaji University, Kolhapur	2009	67%	-	Microbiology
B.Sc.	Shivaji University, Kolhapur	2006	61.60%	-	Microbiology
Other: Diploma	Shivaji University, Kolhapur	2007	81.20%	-	Computer Programming

3. Research Qualification:

Course	University	Year	Topic of Research
Ph.D.	D.Y. Patil University, Kolhapur	Passed	Studies on biological synthesis of silver nanoparticles for biological applications
M. Phil.	-----	-----	-----
JRF/ NET	-----	-----	-----
SET	-----	-----	-----

4. Teaching and Research Experience:

- **2022- 2023:** Research Associate, DBT-BUILDER SUK Programme, Shivaji University.
- **2019- 2022:** Post -Doctoral Fellow (Dr. D. S. Kothari Post-Doctoral Fellow), Department of Biotechnology, Shivaji University, Kolhapur (MS), India.
- **2018- 2019:** Post-Doctoral Fellow (BK-21 Project), Department of Chemical Engineering, Konkuk University, Seoul, South Korea.
- **2015-2018:** Research Assistant Professor, Department of Chemical Engineering, Konkuk University, Seoul, South Korea.
- **2010-2011:** Project Assistant (PA), Board of Research of Nuclear Sciences (BRNS), Mumbai, India. Centre for Interdisciplinary Research, D. Y. Patil University, Kolhapur, Maharashtra, India.

5. Research Papers Published – International/National Journal:

Publications in UGC care List	Publications in conference proceedings	Citations	h-index	i-10 index
39	4	2919	32	39

6. Details of Research Papers Published:

Sr. No	Title of the Paper	Name of Authors	Journal Name	Impact Factor	Year	ISSN No.	Link to the recognition in UGC enlistment of the Journal
1	Magnetic nanostructured adsorbents for water treatment: Structure-property relationships, chemistry of interactions, and lab-to-industry integration	S. M. Prabhu, N. R. Rane, X. Li, S. V. Otari , S. D. Girawale, A. R. Palake, K. M. Kodam, Y-K. Park, Y-H. Ha, K. Yadav, M. Ali Khan, B-H. Jeon	Chemical Engineering Journal, 468, 143474	15.1	2023	1385-8947	https://www.scopus.com/sourceid/16398
2	Biochar based photocatalyst for degradation of organic aqueous waste: A review	S. V. Otari , S. S. Sutar, J. P. Jadhav	Chemosphere, 287, 132200	8.8	2022	0045-6535	https://www.scopus.com/sourceid/24657

3	Recent advances in biowaste to biopolymer (polyhydroxyalkanoates) conversion technologies: production strategy, challenges, and perspective	S. K. Bhatia, S. V. Otari , J-M. Jeon, R. Gurav, Y-K. Choi, A. Pugazhendhi, V. Kumar, J. R. Banu, K-Y. Choi, Y-H. Yang	Bioresource technology, 326, 124733	11.4	2021	0960-8524	https://www.scopus.com/sourceid/15423
4	Green synthesis of silver-decorated magnetic particles for efficient and reusable antimicrobial activity	S. V. Otari , V. C. Kalia, A. Bisht, I-W. Kim, J-K. Lee	Materials, 14, 7893	3.4	2021	1996-1944	https://www.scopus.com/sourceid/76627
5	Rapid and Size-Controlled Biosynthesis of Cytocompatible Selenium Nanoparticles by Azadirachta indica Leaves Extract for Antibacterial Activity	N. A. Mulla, S. V. Otari , R. A. Bohara, H. M. Yadav, S. H. Pawar	Materials Letters, 264, 127353	3.0	2020	0167-577X	https://www.scopus.com/sourceid/28697
6	Conversion of biogas to methanol by methanotrophs immobilized on chemically modified chitosan	S. K. S. Patel, R. K. Gupta, S. Kondaveeti, S. V. Otari , A. Kumar, V. C. Kalia, J-K. Lee	Bioresource technology, 315, 123791	11.4	2020	0960-8524	https://www.scopus.com/sourceid/15423
7	One-step hydrothermal synthesis of magnetic rice straw for effective lipase immobilization and its application in esterification reaction	S.V. Otari , S. K.S. Patel, V. C. Kalia, J-K. Lee	Bioresource technology, 302 122887	11.4	2020	0960-8524	https://www.scopus.com/sourceid/15423
8	Co-generation of hydrogen and electricity from biodiesel process effluents	S. Kondaveeti, I-W Kim, S. V. Otari , S. K.S. Patel, R. Pagolu, V. Losetty, V. C. Kalia, J-K Lee	International Journal of Hydrogen Energy	7.2	2019	0360-3199	https://www.scopus.com/sourceid/26991
9	SiO ₂ microparticles with carbon nanotube-derived mesopores as an efficient support for enzyme immobilization	A. Kumar, G. D. Park, S. K. S. Patel, S. Kondaveeti, S. V. Otari , M. Z. Anwar, V. C. Kalia, S. C. Kim, B-K. Cho, J-H. Sohn, D-R. Kim, J-K. Lee, Y. C. Kang	Chemical Engineering Journal, 359, 1252-1264	15.1	2019	1385-8947	https://www.scopus.com/sourceid/16398
10	Biomolecule entrapped SiO ₂ nanoparticles for ultrafast green synthesis of silver nanoparticle-decorated hybrid nanostructures as effective catalysts	S. V. Otari , V. V. Shinde, H. Gao, S. K. S. Patel, V. C. Kalia, I-W. Kim, J-K. Lee	Ceramics International, 45, 5876-5882	5.1	2019	0272-8842	https://www.scopus.com/sourceid/21522
11	Enhanced saccharification and fermentation of rice straw by reducing the concentration of phenolic compounds	V. Kumar, S. K. S. Patel, R. K. Gupta, S. V. Otari , H. Gao, J-K. Lee, L. Zhang	Biotechnology Journal, 14, 1800468	5.726	2019	1860-7314	https://www.scopus.com/sourceid/4900152305

	using an immobilized enzyme cocktail						
12	Antimicrobial activity of biosynthesized silver nanoparticles decorated silica nanoparticles	S. V. Otari , S. K. S. Patel, V. C. Kalia, I-W. Kim, J-K. Lee	Indian Journal of Microbiology, 59, 379–382	3.0	2019	0973-7715	https://www.scopus.com/sourceid/19735
13	Copper ferrite magnetic nanoparticles for the immobilization of enzyme	S. V. Otari , S. K. S. Patel, S-Y. Kim, J. R. Haw, V. C. Kalia, I-W. Kim, J-K. Lee	Indian Journal of Microbiology 59, 105-108	3.0	2019	0973-7715	https://www.scopus.com/sourceid/19735
14	Fe ₂ O ₃ yolk-shell particle-based laccase biosensor for efficient detection of 2,6-methoxyphenol	S. K.S. Patel, M. Z. Anwar, A. Kumar, S. V. Otari , R. T. Pagolu, S-Y. Kim, I-W. Kim, J-K. Lee	Biochemica 1 Engineering Journal, 132, 1-8	3.9	2018	1369-703X	https://www.scopus.com/sourceid/16849
15	Synthesis of cross-linked protein-metal hybrid nanoflowers and its application in repeated batch decolorization of synthetic dyes	S. K.S. Patel, S. V. Otari , J. Li, D. R. Kim, S. C. Kim, B-K. Cho, V. C. Kalia, Y. C. Kang, J-K. Lee	Journal of Hazardous Materials, 347, 442-450	13.6	2018	0304-3894	https://www.scopus.com/sourceid/25858
16	Repeated batch methanol production from a simulated biogas mixture using immobilized <i>Methylocystis bryophila</i>	S. K.S. Patel, S. Kondaveeti, S. V. Otari , R. T. Pagolu, S. H. Jeong, S. C. Kim, B-K. Cho, Y. C. Kang, J-K. Lee	Energy, 145, 477-485	9.0	2018	0360-5442	https://www.scopus.com/sourceid/29348
17	Rapid, thermostable antimicrobial peptide-mediated synthesis gold nanoparticles as highly efficient charge trapping medium for sol gel-derived thin film	S. V. Otari , M. Kumar, I-W. Kim, J. H. Lee, J-K. Lee	Materials Letters, 725, 1115-1122	3.427	2017	0167-577X	https://www.scopus.com/sourceid/28697
18	Canna edulis leaf extract mediated synthesis of stabilized silver nanoparticles: Characterization, antimicrobial activity, and toxicity studies	S. V. Otari , S. H. Pawar, S. K. S Patel, R. K. Singh, J. H. Lee, L. Zhang, J-K. Lee	Journal of Microbiology and Biotechnology, 27, 731-738	3.277	2017	1738-8872	https://www.scopus.com/sourceid/16086
19	Solution-processed highly efficient Au nanoparticles and their reduced graphene oxide nanocomposites as charge trapping media for ZnO thin film transistor non-volatile memory	M. Kumar, S. V. Otari , H. Jeong, D. Lee	Journal of Alloys and Compounds, 725, 1115-1122	6.371	2017	0925-8388	https://www.scopus.com/sourceid/12325
20	SnO ₂ hollow nanotubes: a novel and efficient support matrix for enzyme immobilization	M. Z. Anwar, J. H. Kim, A. Kumar, S. K. S. Patel, S. V. Otari , J-K. Lee	Scientific Reports, 7, 15333	4.996	2017	2045-2322	https://www.scopus.com/sourceid/21100200805

21	Rapid synthesis and decoration of reduced graphene oxide with gold nanoparticles by thermostable peptides for memory device and photothermal application	S. V. Otari , M. Kumar, M. Z. Anwar, N. D. Thorat, S. K. S. Patel, D. Lee, J. H. Lee., J-K. Lee, Y. C. Kang, L. Zhang	Scientific Reports, 7, 10980	4.996	2017	2045-2322	https://www.scopus.com/sourceid/21100200805
22	Protein-inorganic hybrid system for efficient histagged enzymes immobilization and its application in L-xylulose production	S. K. S Patel, S. V. Otari , Y. C. Kang, J-K. Lee	RSC Advances, 7 3488-3494	4.036	2017	2046-2069	https://www.scopus.com/sourceid/21100199840
23	A green chemistry approach for synthesizing thermostable antimicrobial peptide-coated gold nanoparticles immobilized in an alginic biohydrogel	S. V. Otari , S. K. S Patel, J-H. Jeong, J. H. Lee, J-K. Lee	RSC Advances, 6, 86808-86816	4.036	2016	2046-2069	https://www.scopus.com/sourceid/21100199840
24	Production of Methanol from Methane by Encapsulated <i>Methylosinus sporium</i>	S. K. S Patel, J. H. Jeong, S. Mehariya, S. V. Otari , B. Madan, J.R. Haw, J-K. Lee, L.Zhang, I-W. Kim	Journal of Microbiology and Biotechnology, 26 2098-2105	3.277	2016	1738-8872	https://www.scopus.com/sourceid/16086
25	Facile one pot synthesis of core shell Ag@SiO ₂ nanoparticles for catalytic and antimicrobial activity	S.V. Otari , H.M. Yadav, N.D. Thorat, R.M. Patil, J.K. Lee, S.H. Pawar	Materials Letters, 167 179-182	3.574	2016	0167-577X	https://www.scopus.com/sourceid/28697
26	Intracellular synthesis of silver nanoparticle by actinobacteria and its antimicrobial activity	S.V. Otari , S. J. Ghosh, N. D. Thorat, S. H. Pawar	Spectrochimica Acta Part A, 136, 1175-1180	4.4	2015	1873-3557	https://www.scopus.com/sourceid/24530
27	Preparation and characterization of copper-doped anatase TiO ₂ nanoparticles with visible light photocatalytic antibacterial activity	H. M. Yadav, S. V. Otari , V. B. Koli, S. S. Mali, C. K. Hong, S. H. Pawar, S. D. Delekar	Journal of Photochemistry and Photobiology A: Chemistry, 280, 32-38	4.3	2014	1010-6030	https://www.scopus.com/sourceid/26966
28	Non-aqueous to aqueous phase transfer of oleic acid coated iron oxide nanoparticles for hyperthermia application	R. M. Patil, P. B. Shete, N. D. Thorat, S. V. Otari , A. I. Prasad, R. S. Ningthoujam, B. Tiwale, S. H. Pawar	RSC Advances, 4, 4515-4522	4.036	2014	2046-2069	https://www.scopus.com/sourceid/21100199840
29	Synthesis and visible light photocatalytic antibacterial activity of	H. M. Yadav, S. V. Otari , V. B. Koli, R. A. Bohara, S. S. Mali, C.	Journal of Photochemistry and	4.3	2014	0304-8853	https://www.scopus.com/sourceid/26966

	nickel– doped TiO ₂ nanoparticles against gram–positive and gram–negative bacteria	K. Hong, S. H. Pawar, S. D. Delekar	Photobiology A: Chemistry, 294, 130-136				
30	Superparamagnetic iron oxide/chitosan core/shells for hyperthermia application: improved colloidal stability and biocompatibility	R. M. Patil, P. B. Shete, N. D. Thorat, S. V. Otari , K. C. Barick, A. Prasad, R. S. Ningthoujam, B. M. Tiwale, S. H. Pawar	Journal of magnetism and magnetic material, 355, 22-30	3.097	2014	0304-8853	https://www.scopus.com/sourceid/28526
31	Synthesis, Characterization and Biocompatibility of Chitosan functionalized superparamagnetic nanoparticles for heat activated curing of cancer cells	N. D. Thorat, S. V. Otari , R. M. Patil, R. A. Bohara, H. M. Yadav, V. B. Koli, A. Chaurasia, R. S. Ningthoujam	Dalton Transaction s, 43, 17343-17351	4.0	2014	1477-9226	https://www.scopus.com/sourceid/9500153949
32	Green phytosynthesis of silver nanoparticles using aqueous extract of <i>Manilkara zapota</i> (L.) seeds and its inhibitory action against Candida species	S.V. Otari , R.M. Patil, S.J. Ghosh, S.H. Pawar	Materials Letters, 116 367-369	3.574	2014	0167-577X	https://www.scopus.com/sourceid/28697
33	Structured superparamagnetic nanoparticles for high performance mediator of magnetic fluid hyperthermia: Synthesis, colloidal stability and biocompatibility evaluation	N.D. Thorat, S.V. Otari , R.A. Bohara, H.M. Yadav, A.I. Prasad, R.S. Ningthoujam, S.H. Pawar	Materials Science and Engineering: C, 42, 637-646	8.457	2014	0928-4931	https://www.scopus.com/sourceid/17813
34	The novel microbial synthesis of catalytically active Ag-alginate biohydrogel and its antimicrobial activity	S. V. Otari , R. M. Patil, S. R. Waghmare, S. J. Ghosh, S. H. Pawar	Dalton Transaction s, 42, 9966-9975	4.1	2013	1477-9226	https://www.scopus.com/sourceid/9500153949
35	Enhanced colloidal stability of polymer coated La0.7Sr0.3MnO nanoparticles in physiological media for hyperthermia application	N. D. Thorat, S. V. Otari , R. M. Patil, V. M. Khot, S. H. Pawar	Colloids and Surfaces B: Biointerfaces, 111 264-269	5.8	2013	0927-7765	https://www.scopus.com/sourceid/26590
36	Green synthesis of silver nanoparticles by microorganism using organic pollutant: Its antimicrobial and catalytic application	S.V. Otari , R.M. Patil, N.H. Nadaf, S.J. Ghosh, S.H. Pawar	Environmental Science and Pollution Research, 21, 1503-1513	5.8	2013	1614-7499	https://www.scopus.com/sourceid/23918

37	Green biosynthesis of silver nanoparticles from an actinobacteria <i>Rhodococcus</i> sp.	S.V. Otari, R.M. Patil, N.H. Nadaf, S.J. Ghosh, S.H. Pawar	Materials Letters, 72, 92-94	3.574	2012	0167-577X	https://www.scopus.com/sourceid/28697
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7. Research Paper Published – Conference Proceedings:

Sr. No.	Name of Research Paper	Organized By	Name of Conf.	Level of Conf.	ISB N No.	Vol. No.	Page No.
1	Substrate dependent microbial synthesis of silver nanoparticle and its application as antimicrobial agent	Summy State University	International conference nanomaterials : applications and properties	International	-	1	1
2	Rapid synthesis and decoration of reduced graphene oxide with gold nanoparticles by thermostable peptides for memory device and photothermal applications	The Korean Society for Biotechnology and Bioengineering	2017 KSBB Fall Meeting and International Symposium	International	-		261-261
3	A green chemistry approach for synthesizing thermostable antimicrobial peptide-coated gold nanoparticles immobilized in an alginate biohydrogel	The Korean Society for Biotechnology and Bioengineering	2017 KSBB Fall Meeting and International Symposium	International	-		262-262

8. Books Published/Chapter in Books:

Sr. No.	Title of Book	Publication	Year of Publication	ISBN No.
1	A green chemistry approach for synthesizing thermostable antimicrobial peptide-coated gold nanoparticles immobilized in an alginate biohydrogel	Microbial Bioprocessing of Agri-food Wastes (CRC Press)	2023	9781003128984
2	Recent advances in the metal-organic framework and its derivative nanoparticles for effective textile wastewater treatment	Advances in Eco-Friendly and Sustainable Technologies for the Treatment of Textile Wastewater (Elsevier)	2023	9780323912358
3	Seaweed based biodegradable biopolymers, composite, and blends with applications	Weeds and Environment (Nature Springer Ltd)	2021	978981336552-0

4	Introduction to external field stimulation modalities	External Field and Radiation Stimulated Breast Cancer Nanotheranostics (IOP publisher)	2019	9780750324144
5	Externally/Physically stimulated breast cancer nanomedicine”	External Field and Radiation Stimulated Breast Cancer Nanotheranostics (IOP publisher)	2019	9780750324144
6	Photo-catalytic active silver phosphate for photo-remediation of organic pollutants	Photocatalytic Functional Materials for Environmental Remediation (Wiley)	2019	9781119529941
7	Hybrid Nanostructures in a diagnostic and comprehensive approach to combat cancer	Hybrid Nanostructures for Cancer Theranostics” Micro and Nano Technologies (Elsevier)	2019	9780128139066
8	Multifunctional magnetic nanostructures for cancer hyperthermia therapy	Nano-architectonics for Smart Delivery and Drug Targeting (Elsevier)	2016	9780323473477

9. Conference/Seminars/Workshops Attended:

Sr. No.	Name of Programme	Organized By	Year & Duration	Level of Conference
1	Avishkar	Government of Maharashtra	2008-09 Onde day	Inter-college
2	6 th National Conference on Microbial ecology diversity, molecular technique and its prospects	Indian Association of Applied Microbiology (IAAM)	2009 One day	National
3	Materials Research society of India- Annual General Meeting 2011 (MRSI- AGM2011)	Materials Research society of India- Annual General Meeting (MRSI)	2011 Three days	National

10. Research Guidance:

Course	Current Fellows	Awarded Fellows
M.Phil.		
Ph.D.		

11. Orientation/Refresher/Short Term Courses Attended:

Sr. No.	Name of Organizer	Name of Programme	Year of Programme	Duration (in Days)
1	Ramanujan College, University of Delhi	Induction/Orientation	2023	30

12. Awards /recognition received: International, National, State, University level: Teachers awards, Prize in poster presentation, paper reading in conference/seminar, awards related to social work etc.

Sr. No.	Name of the Award	Awarding Agency	Level	Year
1	Listed in top world's top 2% scientists	Survey conducted by Stanford University, USA.	International	2022 & 2021
2	Dr. J.V. Bhatt award for best paper	Association of Microbiology of India	National	2021
3	Young Associate Nomination	Maharashtra Academy of Sciences	National	2020
4	KU-Brain Pool Research Assistant Professor	Konkuk University, South Korea	International	2015
5	DST-SERB International Travel Grand	DST, Govt. of India	National	2014
6	Certificate of Excellence in the Research	D. Y. Patil University, Kolhapur	National	2014-15
7	Certificate of Excellence in the Research	D. Y. Patil University, Kolhapur	National	2013-14
8	Won 2 nd prize in the poster competition in national conference	National Conference on Recent Trends in Interdisciplinary Research in Material Science	Intercollege	2014
9	Won 2 nd prize in the poster competition in inter college competition-Avishkar	Shivaji University, Kolhapur	Intercollege	2009

13. Patents:

Sr. No.	Name of Contributors	Title	Agency	Registration Number	Year
1	J-K. Lee, S. V. Otari, J-H. Jeong, J. H. Lee	Biohydrogel comprising metal nanoparticles and manufacturing method of the same.	Korean Intellectual Property Rights Information Services (KIPRIS)	1018795100000	11/07/2018
2	J-K. Lee, S. V. Otari, Jinglin Li, M. Zahid Anwar	Preparation method of nisin-gold nanoparticles-reduced graphene oxide nanocomposite by using thermostable peptides	Korean Intellectual Property Rights Information Services (KIPRIS)	1019747330000	23/04/2019
3	J-K. Lee, J-T Park, J-H. Kim, D-J Kim, A. Kumar, S. V. Otari, J-H. Jeong, M. Zahid Anwar, P. Mardina	A method for fixing a bio-material to a metal nanotube and a biosensor including the same	Korean Intellectual Property Rights Information Services (KIPRIS)	10-2003122-0000	29/04/2019
4	J-K. Lee, S. V. Otari, V.C. Kalia, S.K.S. Patel, C. Hyunsoo	Magnetic nanoparticle for immobilization of enzyme	Korean Intellectual Property Rights Information Services (KIPRIS)	10-2019-0007645	06/11/2020

14. Editorial Board

- 1) Associate Editor : Frontiers in Microbiology (Microbiotechnology)
- 2) Review Editor : Frontiers in Bioengineering and Biotechnology (Biomaterials)

15. Leadership Activities:

- 1) District Coordinator- Satara District Coordinator AVSIHKAR Inter University Research Convention 2023-24

16. Contribution to University level

- Paper setter : M.Sc. I and M.Sc. II Theory
- Examiner : B.Sc., M.Sc.
- Subject Expert in :
- CAP : M.Sc. I and MSc. II Theory
- BOS :

Special Achievement/ Co-Curricular/Extra Curricular Activities:

Sr. No.	Type of Activity	Year	Event/Programme	Place
1	Table-Tennise	2003-2006	Inter college competition	Rajaram college, Kolhapur

Place : Karad

Name of Faculty

Dr. Sachin Vijay Otari