

Mahatma Phule Shikshan Sanstha's

KARMAVEER BHAURAO PATIL COLLEGE

URUN - ISLAMPUR, DIST. SANGLI.

# **Department of Chemistry**

## **FACULTY PROFILE**

**Dr. S. B. Jirage**

Associate Professor and Head Department of Chemistry

## FACULTY PROFILE

**Name- Mr. Sandesh Bapu Jirage**

Qualification- M. Sc., SET, Ph.D. Appeared

Department : Chemistry

Designation- Assistant Professor in Chemistry. Faculty/Stream –Science

Date of Birth- 10/03/1983

Date of Appointment - 02/08/2010

Residential Address –A/P-Galgale Tal-Kagal Dist-Kolhapur  
Pin- 416235. Contact No.- 9922761402

Email- sandeshjirage01@gmail.com

Qualification Details –

Sr. No.	Degree	University	Year	Class/ Grade
1	B. Sc.	Shivaji University, Kolhapur	2003	First Class
2	M. Sc.	Shivaji University, Kolhapur	2005	First Class
3	SET	Pune University, Pune	2009	Qualified
4	Ph.D.	Shivaji University, Kolhapur	2023	

11. Period of teaching experience:

P.G. Classes (in years)	12 years
U.G. Classes (in years)	16 years

12. Research Experience excluding years spent in M. Phil / Ph. D (in years) 09

13. Fields of Specialization under the Subject / Discipline

(a) Organic Chemistry (b) Material Chemistry

#### 14. Orientation / Refresher/ Short term Course/ FDP/ FIP attended

No.	Orientation/ Refresher	Date	Place	Organized by
1.	Orientation	23/9/2014 to 20/10/2014	Goa	Academic Staff College, Goa University
2.	Refresher	19/12/2016 to 08/01/2017	Rajkot,	HRDC Rajkot University, Rajkot, Gujrat.
3	Online Refresher	1/11/2018 to 28/2/2019	Online	SWAYAM-MOOC, MHRD Govt. of India, Tej Bahadar College, Khalsa, Delhi.
4	Online Refresher	01/09/2019 to 31/12/2019	Online	SWAYAM-MOOC, MHRD Govt. of India, Tej Bahadar College, Khalsa, Delhi.
5	One Week STTP on “Recent Trends in Interdisciplina ry Research in Material Sciences”	26 <sup>th</sup> Dec. 2017- 30 <sup>th</sup> Dec. 2017	Asta	Deptt. of Basic Sciences A. D. College of Engineering & Technology.
6	One week National online FDP on ICT Tools for Effective Teaching Learning	27 <sup>th</sup> April to 2 <sup>nd</sup> May 2020	Online	SRTM University, Nanded.
7	One Week Online Faculty Development Program On Use of ICT in Teaching	1 <sup>st</sup> June to 6 <sup>th</sup> June 2020	Online	Ghali College, Gadhinlaj, Dist- Kolhapur

	Learning			
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## 15. PROFESSIONAL DEVELOPMENT, CO-CURRICULAR AND EXTENSION ACTIVITIES

Sr. No.	Name of the activity	Position held
1	Science & Nature Club	Chairman
2	Industrial Visits/Field/ Project/OJT Work/Experiential Learning	Chairman
3	Standing Committee	Chairman
4	Staff Assessment Committee	Member
5	Placement Committee	Member
6	Staff academy	Member
7	Examination Committee	
8	Admission Committee	Member

- **Community Service**

**Member-** Andhashradha Nirmulan Samiti Maharashtra State

- **Student centric activities**

1. Seminar
2. Group Discussion.
3. Event Organization.
4. Industrial and Study Tours.
5. Competitive Examination/Career Guidance.
6. Encouragement for Participation in Chem-Quiz.
7. Use of Audio-Visual Aids/ ICT.
8. Project Study.

- **Work at University level**

A) Examination Work.

1. Involvement in B.Sc. Practical Examination at College Level Since 2010.
2. Involvement in University B.Sc. Practical Examination since 2010.
3. Worked as Paper Setter.
4. Worked as Practical Examiner.
5. Worked as Internal/External Senior Supervisor

## 16. RESEARCH AND ACADEMIC CONTRIBUTIONS

Project Title	Funding Agency	Project Duration	Grant Amount
Synthesis and characterization study of ecofriendly Cu <sub>2</sub> ZnSn(S/Se) <sub>4</sub> (CZTS/Se) thin films	Shivaji University, Kolhapur Research Initiation Scheme 2022	2023 to 2025 (Ongoing)	1,50,000/-

### Publication of Research Papers

Sr. No.	Title	Journal	ISSN/IS BN	Publisher	Level
1	Chemical Synthesis and characterization study of Nanocrystalline and coral rock like kasterite Cu <sub>2</sub> ZnSnS <sub>4</sub> thin films	Iranian Journal of Materials Science and Engineering	1735-0808	Iran University of Science & Technology	International
2	Exploring the Frontiers of Sustainability: A Review on Eco-Friendly methods for the Synthesis of Heterocyclic Compounds	Journal of Technology	10123407	National Taiwan University of Science & Technology	International
3	Synthesis and Characterization study of Ecofriendly Cu <sub>2</sub> ZnSnS <sub>4</sub> Thin Films by CBD method	International Journal of Scientific Research in Science and Technology	2395-602X Online	IGSRST	International
4	Structural and morphological studies of chemically deposited environment best Cu <sub>2</sub> ZnSnS <sub>4</sub> thin films	International Journal of Chemical and Physical Sciences	2319-6602 (1.8)	IJCPS	International
5	Synthesis and characterization of ecofriendly and large area honeycomb-like Cu <sub>2</sub> ZnSnS <sub>4</sub> thin films for solar cell application using chemical bath method	IOP Conference Series: Materials Science and Engineering	1757-8981 (1.2)	IOP	International
6	Novel chemical approach to synthesis & characterisation of greener & rock like Cu <sub>2</sub> ZnSnS <sub>3</sub> Se tin films of kasterite structure	Materials Today: Proceedings	2014-7853	ELSEVIER	International
7	Structural & morphological studies of chemically deposited nanocrystalline & nanoflower like Cu <sub>2</sub> ZnSnSe <sub>4</sub> thin films	Materials Today: Proceedings <a href="https://doi.org/10.1016/j.matpr.2020.08.076">https://doi.org/10.1016/j.matpr.2020.08.076</a>	2014-7853	ELSEVIER	International

8	<b>Simplest Synthesis and Characterization study of flower like Cu<sub>2</sub>ZnSnSe<sub>4</sub> thin films</b>	<b>Materials Today: Proceedings</b>	<b>2014-7853</b>	<b>ELSEVIER</b>	<b>International</b>
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### Publication of Research Papers in Conference Proceeding

Sr. No.	Title of the paper with page no. Vol. Issue	Title of the journal	ISSN/ISBN No and impact factor	Publisher	Level
1	Synthesis of Ecobest & earth abundant Cu <sub>2</sub> ZnSnS <sub>4</sub> thin films by chemical bath method	Proceedings of National Conference on Recent Advances in Physics and Natural Sciences.	978-81-926339-4-7 2017-18	KBP College	National
2	Synthesis & characterization of environment best Cu <sub>2</sub> ZnSnS <sub>4</sub> thin films with kasterite structure & aster flower like morphology by chemical bath method	Proceedings of International Conference of Materials & Environmental Sciences.	ISBN-978-93-5346-224-6	ICMES-2018	International
3	Simplest Chemical Synthesis and Characterization of Nanocrystalline and Coral Rock-Like Kasterite Cu <sub>2</sub> ZnSnS <sub>4</sub> (CZTS) Thin Films	Proceedings of International Conference of Materials & Environmental Sciences.	ISBN-978-93-93259-89-9	ICAMCM ME-2022	International

### Paper presented in National / International Conference/Workshop/ Symposium

No.	Date	Place	Organized By	Theme	Level
1	10th Mar. 2015	Gargoti	Karmveer Hire Arts, Science, Commerce and Education College, Gargoti.	Emerging Trends in Basic and Applied Sciences.	<b>International</b>
2	6th & 7th Feb. 2015	Kolhapur	Rajarshi Chhatrapati Shahu College, Kolhapur	Challenges & Opportunities before 21 <sup>st</sup> Century India in the field of science and Technology	<b>International</b>
3	7th & 8th Nov. 2017	Kolhapur	GKG College, Kolhapur.	Innovative Research in Science and Technology	<b>International</b>
4	23 <sup>rd</sup> Jan. 2018	Islampur	KBP College, Islampur	Recent Advances in Physics and Natural Sciences	<b>National</b>
5	30th & 31st Jan. 2018	Lonavala	Dr. B.N. Purandare college Lonavala	Recent Advances in Chemistry	<b>State</b>

6	7 <sup>th</sup> Dec. 2018 & 8 <sup>th</sup> Dec. 2019	Kolhapur	New College, Kolhapur and Y.C College, Solankur.	Int. Conference on Materials & Environmental Science (ICMES2019)	<b>International</b>
7	5 <sup>th</sup> & 6 <sup>th</sup> Jan. 2019	Vita	Balavant College, Vita.	International Conference on Advances in Pure & Applied Sciences (ICAPAS-2019)	<b>International</b>
8	29 <sup>th</sup> Nov. to 1 <sup>st</sup> Dec. 2019	Vellore	Vellore Institute of Technology, Vellore, Tamilnadu, India.	International Conference on Nanoscience and Nanotechnology (ICNAN'19)	<b>International</b>
9		Amaravati	Sant Gadage Baba Amaravati University, Amaravati	NCCT-2019	<b>National</b>
10	29 <sup>th</sup> to 31 <sup>st</sup> Jan. 2020	Satara	Y.C.I.S. Satara	International Conference on Multifunctional & Hybrid Materials for Energy & Environment (ICNAN-2019)	<b>International</b>
11	2020	Jath	Raje Ramrao Mahavidyalaya Jath, Dist- Sangli	International Conference on Advances on Material Sciences (ICAMS-2020)	<b>International</b>
12	2020	Rajkot	RK University, Rajkot, Gujrat, India.	International Conference on Molecular structure & Instrumental Approaches	<b>International</b>

- **Participation**
- **i) Conferences**

No.	Date(s)	Place	Organized By	Theme	Level
1.	6 <sup>th</sup> January 2012	Shirala, Dist Sangli	Baba Naik Science Mahavidyalaya, Shirala	Advanced Techniques of Teaching and Learning in Higher Education	National
2.	22 <sup>nd</sup> & 23 <sup>th</sup> Jan 2013	Kolhapur	Deptt. of Chemistry Shivaji University, Kolhapur	Current Research in Chemical Sciences.	National
3	6 <sup>th</sup> & 7 <sup>th</sup> Sept 2013	Nipani	Devchand College Nipani	Drug Designing & Discovery	National

4.	22nd & 23th Sept 2013	Tasgaon	Dept of Chemistry PDVP college Tasgaon.	Frontiers in Chemical & Biological Sciences.	National
5	18th & 19th Sept 2014	Devchand college Arjunnagar	Dept of Chemistry, Devchand College Nipani	Recent Trends in Chemical Sciences.	National
6	16th & 17th Jan. 2015	Kolhapur	Dept of Chemistry Shivaji University, Kolhapur	Frontiers in Chemical and Material Sciences.	National
7	10th Mar. 2015	Gargoti	Karmveer Hire Arts, Science, Commerce and Education College, Gargoti.	Emerging Trends in Basic and Applied Sciences.	International
8	6th & 7th Feb. 2015	Kolhapur	Rajarshi Chhatrapati Shahu College, Kolhapur	Challenges & Opportunities before 21 <sup>st</sup> Century India in the field of Science and Technology	International
9	15th Feb. 2017	Solankur	Shri Yashwantrao Patil Science College, Solankur	Materials and Environmental Science	National
10	7th & 8th Nov. 2017	Kolhapur	GKG College, Kolhapur.	Innovative Research in Science and Technology	International
11	6th Jan. 2018	Solankur	Shri Yashwantrao Patil Science College, Solankur	Recent Trends in Chemical Sciences & its Interdisciplinary Applications	National
12	23 <sup>rd</sup> Jan.	Islampur	KBP College, Islampur	Recent Advances in Physics	National



	2018			and Natural Sciences	
13	24 <sup>th</sup> & 25 <sup>th</sup> Jan. 2018	Islampur	KBP College, Islampur	Rastriya Bandhuta Sahitya Samelan	National
14	30 <sup>th</sup> & 31 <sup>st</sup> Jan. 2018	Lonavala	Dr. B.N. Purandare college Lonavala	Recent Advances in Chemistry	State
15	7 <sup>th</sup> & 8 <sup>st</sup> Dec. 2018	Kolhapur	Y. P. College, Solankur & New College, Kolhapur	Materials & Environmental Science (ICMES-2018)	International
16	5 <sup>th</sup> & 6 <sup>st</sup> Jan. 2019	Vita	Balawant College Vita	Advances in Pure & Applied Sciences (ICAPAS-2019)	International
17	5 <sup>th</sup> & 6 <sup>st</sup> Jan. 2019	Kolhapur	FASTA	Indian Constitution: Reservation and Social Justice	National
18	16 <sup>th</sup> Feb. 2019	Islampur	Deptt. of English, KBP College, Islampur Dist- Sangli	Language, Literature & Culture	National
19	29 <sup>th</sup> to 31 <sup>st</sup> Jan. 2020	Satara	Y.C.I.S. Satara, MS- India	International Conference on Multifunctional & Hybrid Materials for Energy & Environment (ICNAN-2019)	International
20	6 <sup>th</sup> to 7 <sup>th</sup> June, 2020	Jath	Raje Ramrao Mahavidyalaya Jath, Dist- Sangli	International Conference on Advances on Material Sciences (ICAMS-2020)	International
21	8 <sup>th</sup> June, 2020	Panvel	Mahatma Phule Arts, science & Commerce College, Panvel	International Webinar on Advances on Nanomaterials for Smart & sustainable	International

			(Raigad)	Energy solutions	
22	13th Feb. 2020	Islampur	KBP College, Islampur	Challenges before Indian Constitution	National

## ii) Seminars

No.	Date(s)	Place	Organized By	Theme	Level
1.	21 & 22 <sup>nd</sup> January 2012	Kolhapur	Department of Chemistry, Shivaji University, Kolhapur	National Seminar on Recent Advances in Synthetic Chemistry and Nanomaterials 2012 (RASCN-2012)	National
2.	13 to 15 <sup>th</sup> February 2012	Pune	Department of Chemistry, S. M. Joshi College, Pune	Applications of Nanomaterials in Synthesis	National
3.	21 <sup>st</sup> Dec 2011	Jaysingpur	P. G. Department of Chemistry, Jaysingpur College Jaysingpur.	Chemistry in Our Life	State
4.	7 <sup>th</sup> & 8 <sup>th</sup> Feb 2013	Chikodi	Department of Chemistry Basavaprabhu Kore College Chikodi	The World of Nanoscience	National
5	1 <sup>st</sup> Oct. 2013	Sangli	Kasturbai Walchand College Sangli	Emerging Trends in Chemistry through Green Approach	State
6	20 <sup>th</sup> , Feb. 2019	Islampur	Social Science Forum, KBP College, Islampur Dist- Sangli	Pandit Nehru: A Nation Builder	National
7	3 <sup>rd</sup> Feb., 2020	Islampur	KBP College, Islampur	National Seminar on Mahattma Gandhichya vicharanchi prastutata	National
11	8 <sup>th</sup> Feb., 2020	Islampur	KBP College, Islampur	One Day National seminar on Application of Statistics & Mathematics in Economics	National

12	3 <sup>rd</sup> May, 2020	Delhi	JNU, Delhi	Webinar on Covid 19 Pandemic: Solution	National
13	20 <sup>th</sup> , May, 2020	Sangli	PK College, Sangli	Webinar on Empowring Teachers with Moodle LMS	National
14	2 <sup>nd</sup> June, 2020	Vaduj, Satara.	Arts, Commerse College, Vaduj, Satara.	Webinar on covid 19:Challenges, Opportunities & Scintific Writting	National
15	8 <sup>th</sup> to 10 <sup>th</sup> June, 2020	Kolhapur.	Govt.,Rajaram College, Kolhapur.	Webinar on IPR & E- content Development	National

### iii) Workshops

No.	Date(s)	Place	Organized By	Theme	Level
1.	10 <sup>th</sup> Aug. 2011	Kolhapur	Vivekanand College, Kolhapur	Workshop on Revised Syllabus of B. Sc. II	University
2.	5 <sup>th</sup> Feb. 2012	Kolhapur	Marathi Rasaynshastra Parishad, Maharashtra	State Level workshop on Chemistry	State
3.	10 <sup>th</sup> Aug 2012	Satara	Y.C.Institute of Satara	Workshop on revised syllabus of Inorg.Chemistry B.Sc.III	University
4.	11 <sup>th</sup> Aug 2012	Chikhli	D.A. B. Naik Arts & Science College Chikhali	Workshop on revised syllabus of Practical Chemistry B.Sc.III	University
5.	19 <sup>th</sup> March	Islampur	K.B.P.College,	Role of Non Teaching in	University

	2013		Islampur Dist- Sangli	Higher Education.	
6.	13 <sup>th</sup> Aug2013	Rethare BK	Krishna Mahavidyalaya Rethare BK	Workshop on revised syllabus of Practical Chemistry B.Sc. I	University
7	12 <sup>th</sup> Aug2015	Sangli	Wilingdon College, Sangli	Workshop on revised syllabus of B.Sc. III Chemistry XI & XV	University
8	11 <sup>th</sup> Jan. 2018	Islampur	K.B.P.College, Islampur Dist- Sangli	Workshop on ICT based Teaching Learning Process	University
9	13 <sup>th</sup> Jan. 2019	Kolhapur	Dr. Babasaheb Ambedkar Centre for Res. & Dev., Kolhapur	Constitution Policy of Reservation	National
10	25th, Feb. 2020	Islampur	K.B.P.College, Islampur Dist- Sangli	National workshop on Intellectual Property Rights	National
11	23/5/2020	Tamilnadu	Vivekanandha College of Arts and Science For Women, Tiruchangode Namaklall.	Skill Bases Workshop on Nuances of Software Handling in Chemical Sciences	National

**iv) Symposium**

No.	Date	Place	Organized By	Theme	Level
1	23 <sup>rd</sup> Jan. 2019	Islampur	Deptt. of Chemistry, KBP College, Islampur Dist- Sangli	Role of Chemistry in Agricultural Development	National
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**Involvement in education and extra-curricular activities**

No.	Date	Organized By	Theme	Role	Level
1	23 <sup>rd</sup> Jan.	KBP College, Islampur	Recent Advances in	Organisation	National

	2018		Physics and Natural Sciences	member Stage committee	
2	24 <sup>th</sup> & 25 <sup>th</sup> Jan. 2018	KBP College, Islampur	Rastriya Bandhuta Sahitya Samelan	Organisation member	National
3		Department of Chemistry KBP College, Islampur.	NET/ SLET guidance workshop	Organisation Convener	University
3	7th & 8th Nov. 2017	Department of Chemistry KBP College, Islampur.	Study Tour at Goa-Kokan of B.Sc. III students.	Organisation Convener	State
4	8th Nov. 2017	Science and Nature Club KBP College, Islampur.	Study Tour at Goa-Science Centre for students.	Organisation Convener	College
5	2018	Science and Nature Club KBP College, Islampur.	Development of Garden Layout as competition.	Organisation member	College
6	2018	Science and Nature Club KBP College, Islampur.	Developing Clay Models For Subcellular Structure	Organisation member	College
7	22 <sup>nd</sup> Sept. 2018	KBP College, Islampur	Karmaveer Jayanti B.Sc.III students.	Organisation Convenor	College
8	28 <sup>th</sup> Feb, 2018	Science and Nature Club KBP College, Islampur.	The lecture on Atomic Energy	Organisation Convenor	College
15	22 <sup>nd</sup> Sept. 2018	KBP College, Islampur	Karmaveer Jayanti B.Sc.I students.	Organisation Convenor	College

9	22 <sup>nd</sup> Jan, 2019	Science and Nature Club KBP College, Islampur.	Poster Presentation and Competitions	Organisation Convener	College
10	23 <sup>rd</sup> Jan, 2019	Deptt. of Chemistry, KBP College, Islampur.	A National Symposium on Role of Chemistry in Agricultural Development	Organisation Co- Convener	College
11	14 <sup>th</sup> Feb. 2019	Science and Nature Club KBP College, Islampur.	Lecture on 'The world of alcohol'	Organisation Convener	College
12	19 <sup>th</sup> Sept. 2019	Deptt. of Chemistry, KBP College, Islampur	Poster Presentation on Chemistry	Organisation member	College
13	20 <sup>th</sup> Sept. 2019	Science and Nature Club KBP College, Islampur.	Exhibition of Coins	Organisation Convener	College
14	20 <sup>th</sup> Sept. 2019	Science and Nature Club KBP College, Islampur.	Exhibition of Marvellous Metals	Organisation member	College
15	23 <sup>th</sup> Sept. 2019	KBP College, Islampur	Karmaveer Jayanti B.Sc.I students.	Organisation Convener	College
16	23 <sup>th</sup> Sept. 2019	KBP College, Islampur	Seminar on Social Media	Organisation member	College
17	14 <sup>th</sup> Feb, 2018	Science and Nature Club KBP College, Islampur.	The lecture on The world of Alcohol	Organisation Convener	College

**Participation in Various Organizations:-**

Sr. No.	Organization
1	Member Shivaji University Teachers Association (SUTA).
2	Member of Teachers Benevolent Fund.

**Additional Qualification-**

Obtained Certificates of MS-office and Yoga.

**Personal you tube Channel link**

<https://bit.ly/3jYCa6O> or

<http://www.youtube.com/channel/UCnwANs-HaB6S0bLCQkd7J0A>