

Shri Shivaji College of Arts, Commerce and Science, Akola

Faculty Profile

- 1. Name** : Dr. Shrikrishna Bhimrao Sawarkar
- 2. Address (residential)** : Flat No. F-3, Siddhivinayak Empire,
Kela Plots, Near Ice
Factory, Jatharpeth, Akola
- 3. Phone No. / Cell No.** : 0724-2491098
- 4. E-mail address** : sawarkarsir@yahoo.com
- 5. Designation** : Professor
- 6. Department** : Physics
- 7. Date of birth** : 23/ 08/ 1963
- 8. Area of specialization** : Digital Electronics and Solid State Physics.
- 9. Academic qualification** :



Examination passed	Board/ University	Subject/ Specialization	Year of passing	Division/ Grade/ Merit
B.Sc.	Nagpur	Physics, Mathematics, Chemistry	1984	First
M.Sc.(Physics)	Amravati	Physics	1986	First
B.Ed.	Amravati	-----	1992	First
M. Phil.	Amravati	Advanced Electronics, Materials Science, Research Methodology	1999	----
Ph.D.	Amravati	Depolarization Study of Lead Borate Glasses using Thermally Stimulated Discharge	2002	----

10. Membership of Academic Organizations:

1. Indian Society for Technical Education, New Delhi (L.M. – 6749).
2. Indian Association of Physics Teachers, Kanpur (4446 L 2102).
3. Nagpur University Teachers Association (L.M.-4914).
4. Materials Research Society of India (MRSI), Bangalore (LMB 1215).
5. The Indian Science Congress Association, Kolkata (15985).
6. Amravati University Physics Teachers Association
7. Maharashtra Rajya Shikshak Parishad

11. Research Experience

- a) Guiding M. Sc. Dissertation : 43
- b) Recognized as Ph. D. Supervisor by Sant Gadge Baba Amravati University, Amravati (Notification No. 43/2020, Dated 04/06/2020)
- c) Publishing research papers.

c-A) Publications in Journals (17)

- 1) “Depolarization study of semiconducting glasses using thermally stimulated discharge” Indian Journal of Pure & Applied Physics (April 1997), **Vol. 35**, 281-289, (ISSN: 0019-5596).
- 2) “Thermally stimulated discharge current in lead borate glasses” IEEE Proceedings of XX ISDEIV International Symposium on discharges and electrical insulation in Vacuum (30 June – 05 July, 2002 ETI De. Tours-France), pp, 214-218 (ISSN: 1093-2941, ISBN: 0-7803-7394-4).
- 3) “Thermally stimulated discharge conductivity of PVC thin film” Indian Journal of Engineering & Material Science (Oct 2002) **Vol. 9**, 375-382 (ISSN: 0971-4588).
- 4) “Thermally stimulated discharge current (TSDC) and dielectric constant of semiconducting gasses” Bulletin of Material Science (February 2003), **Vol. 26 No. 2**, 267-271 (ISSN: 0250-4707).

- 5) "Role of spider in agroecosystem", The Ecosphere (November 2011), **Vol.2 No.1 & 2**, 47-50. (ISSN: 0976-1578).
- 6) "Origin and properties of dragline silk of *Nephila pilipes*", Journal of Biological and Physical Sciences ((November 2012), **Vol. (IV)**, 45-47, (ISSN: 2319-636X).
- 7) "Nonlinear absorption of L-arginine capped ZnO nano-suspension, International Journal of Basic and Applied Research Special (Jan. 2014), **Vol.04**, 49-52 (ISSN: 2249-3352; online 2278-0505).
- 8) "Biochemical analysis of major ampullate silk of *Nephila pilipes* with FTIR spectroscopy," Asiatic Journal of Biotechnology Resources (Jan. 2014), **Spl 11 Vol.4(4)**, 66-68, 2249-2399; eISSN 0976-4992.
- 9) "Microscale Topography of Dragline Silk of *Nephila pilipes* (Fabricius, 1793)", Indian Journal of Arachnology (July 2015), Vol. 4(1), 18-21, (ISSN: 2278-1587 Online).
- 10) "Spider silk-an ancient material of the future", International Journal of Pure and Applied Research in Engineering and Technology (September 2016), Vol.5 (2), 236-240, (ISSN:2319-507X, Impact Factor, 2016: 4.226), UGC App. J. No. 45872.
- 11) "Medicinal prospects for major ampullate silk of giant wood spider, *Nephila Pilipes*", *International Journal of Researches in Biosciences, Agriculture and Technology*(July 2017),Special issue (2),Vol.-V, 163-165(ISSN:2347-517X-Online **Impact Factor, 2016: 5.060**), UGC App. J. No. 43906.
- 12) "X- ray diffraction study of dragline silk of *Nephila pilipes* (Araneae: Araneidae)", *International Journal of Pure and Applied Research in Engineering and Technology* (September 2017), Vol.6 (2), 66-69, (ISSN: 2319-507X, **Impact Factor, 2016: 4.226**), UGC App. J. No. 45872.
- 13) "AFM study of egg sac silk fibers of the giant wood spider, *Nephila pilipes*(Araneae: Araneidae)", International Journal of Current Engineering and Scientific Research (Jan. 2019), vol.6, Issue 1, 97-100 (ISSN Print: 2393-8374, Online: 2394-0697 , **Impact Factor: 6.263**)
- 14) "Orb web features of giant wood spider *Nephila pilipes*", Research Journey International E Research Journal (Feb. 2019), Special issue vol. 110 (G)-Zoology, 145-149 (ISSN: 23487143 **Impact Factor: 6.261**), UGC App. J. No. 40705.
- 15) "Structural and optical properties of Antimony Trioxide Nanoparticles Prepared by Chemical Precipitation Method" Research Journey International E Research Journal (Feb. 2019), Special issue vol. 110 (I)- Physics, 21-123 (ISSN: 2348-7143 **Impact Factor: 6.261**), UGC App. J. No. 40705.
- 16) "Structural and optical properties of nanostructured zirconium di-sulphide thin film grown by SILAR method", An International Multidisciplinary Research Journal: Ajanta (March 2019), Vol. VIII Issue 1 Part XIV, 159-163 (ISSN: 2277-5730, **Impact Factor: 5.5**) UGC App. J. No.40776.
- 17) "Structural and optical properties of nanostructured manganese disulphide thin film grown by SILAR method", Aayushi International Interdisciplinary Research Journal (January 2020), Vol. Special Issue 66, 189-191 (ISSN: 2349-638x, **Impact Factor: 6.293**)

c-B) Full Length Research Papers Published in Conferences/ Seminars Proceedings (Published-03)

- 1) "Nanotechnology and Indian agriculture" National Seminar on Photonic Materials and Nanotechnology, 23 January-24 January, 2009, Department of Physics, Electronics and Photonics, Rajarshi Shahu Mahavidyalaya, Latur, pp 47-52.
- 2) "Proposal to save environment" Interdisciplinary State Level Symposium on Women's Role in Conservation of Environment, 30 December, 2009, S.S.S.K.R. Innani Mahavidyalaya, Karanja-Lad (Washim), pp 39-41.
- 3) "Fireworks: One of the most unusual sources of pollution" National Conference on Climate Change & Its Consequences, 12 January-13 January, 2010, Bhartiya Mahavidyalaya, Amravati, pp 96-99.

c-C) Papers Presented in Conferences/ Seminars/Symposium cum Workshops (37)

- 1) "Transport properties of Zinc doped lead borate glasses" National Conference on Recent Trends in Composites, 28 February -2 March 2001,Department of Physics, Shri Shivaji Science College, Amravati.
- 2) "Fortran in physics laboratory" State Level Seminar on Recent Trends in Teaching Basic and Applied Sciences, 03 January, 2009, Phulsing Naik Mahavidyalaya, Pusad (Yavatmal).
- 3) "Inexpensive laser wavelength determination kit" State Level Seminar on Recent Trends in Teaching Basic and Applied Sciences, 03 January, 2009, Phulsing Naik Mahavidyalaya, Pusad (Yavatmal).
- 4) "Improving laboratory instructions" State Level Seminar on Recent Trends in Teaching Basic and Applied Sciences, 03 January, 2009, Phulsing Naik Mahavidyalaya, Pusad (Yavatmal).

- 5) "Biometric supported ATM banking" National Seminar on Information Technology Enabled Services-2009, 11 April, 2009, Shri Shivaji College of Arts, Commerce, Akola.
- 6) "The Impact of Mathematics on Biology" State Level Seminar in Mathematics on Expanding Wings of Mathematics in the Field of Science & Social Sciences, 04 January, 2010, Shri R.L.T.College of Science, Akola.
7. "Effects of idol immersion on some water quality parameters of Morna river", National Level Seminar on Water, Energy, Environment & Society, 30 January,2010, P. N. Mahavidyalaya, Pusad (Yavatmal).
8. "Restoration of forest ecosystem in katepurna wildlife sanctuary, Akola"National Level Seminar on Water, Energy, Environment & Society, 30 January,2010, P. N. Mahavidyalaya, Pusad (Yavatmal).
- 9) "Synthesis, growth and characterization for urea phosphate doped KDP single crystals for their NLO applications" National Seminar on "Current Trends in Physical Sciences & Electronics Research, 28 March, 2010, Shri Shivaji College of Arts, Commerce & Science, Akola.
- 10) "Study of physical properties of lead borate glasses" National Seminar on Current Trends in Physical Sciences & Electronics Research, 28 March, 2010, Shri Shivaji College of Arts, Commerce & Science, Akola.
- 11) "Development of CO₂ Gas Sensor Instrumentation using Soft Molecular Electronics" National Conference on "Nanoscience and Technology", 21 Feb-22 Feb 2011, Shri Shivaji Education Society's Science College, Nagpur.
- 12) "Role of Spider in Agroecosystem" National Conference on "Advances in Life Sciences for Sustainable Rural Development", 11 Oct-12 Oct, 2011, Shankarlal Khandelwal College, Akola.
- 13) "Dr. Ambedkar and Buddha's path to equality" Interdisciplinary International Conference on "Dr. Ambedkar's Buddhism and its Emancipatory Potential", 27 Jan-28 Jan 2011, Shri Shivaji College of Arts, Commerce & Science, Akola.
- 14) "The Form and Function of Orb Web of Spider *Nephila pilipes*" National Conference on "Innovative Research Trends in Biological Sciences", 8 Sept- 9 Sept, 2012 Shri Shivaji College of Arts, Commerce & Science, Akola.
- 15) "Impact of Climate Change on Agriculture" Interdisciplinary National Seminar on "Impact of Climate Change on Agriculture Production in India", Oct. 6, 2012, Shri Shivaji College of Arts, Commerce & Science, Akola.
- 16) "Mahatma Gandhi's Vision of Rural Development" Interdisciplinary International Conference on "Relevance of Dr. Babasaheb Ambedkar, Mahatma Gandhi and Pandit Nehru's Ideology in the Present Scenario", 29 Oct-30 Oct, 2012, Shri Shivaji College of Arts, Commerce & Science, Akola.
- 17) "Origin and properties of dragline silk of *Nephila pilipes*" II Word Congress for Man & Nature-2012 on "Global Change: Impact on Biodiversity, Culture & Technology", 3 Nov-5 Nov., 2012, Sevadal Mahila Mahavidyalaya, Nagpur.
- 18) "Microstrip patch antenna for 1900 MHz band" National Conference on "Recent Initiatives towards Green Electronics", 8 Feb – 9 Feb, 2013, Brijlal Biyani Science College, Amravati.
- 19) "Effect of capping agents on the particle size of ZnO quantum dots", National Conference on "Upcoming Trends in Chemical Science", 6 Sept-7 Sept., 2013, Shri Anand College of Science, Pathardi (Ahmednagar).
- 20) "Nonlinear absorption of L-arginine capped ZnO nano-suspension", National Conference on "Materials Science: Trends and Future", 10-11 Jan., 2014, Bhartiya Mahavidyalaya, Amravati.
- 21) "Biochemical analysis of major ampullate silk of *Nephila pilipes* with FTIR spectroscopy", State level Seminar on "Exploration of Biochemistry and Molecular Biology for Betterment of Human Life", 29 Jan. 2014, Arts and Science College, Pulgaon-Wardha.
- 22) "Effect of PVP as capping agent on the optical properties of ZnO nanoparticles", National Conference on "Recent Trends in Mathematics, Physics & Their Applications", 19 March, 2014, Shankarlal Khandelwal College, Akola.
- 23) "X- ray diffraction study of egg sac silk of *Nephila pilipes* (Araneae: Nephilidae)", National Conference on "Recent Trends in Mathematics, Physics & Their Applications", 19 March, 2014, Shankarlal Khandelwal College, Akola.
- 24) "AFM study of dragline silk of *Nephila pilipes* (Araneae: Nephilidae)", National Symposium Cum Workshop on "Diversity of Spiders with Special Reference to Taxonomy and Molecular Systematics", 26-29 Nov. 2014, Shankarlal Khandelwal College, Akola.
- 25) "Dragline silk of giant wood spider, *Nephila pilipes* (Araneae: Nephilidae)", 3rd Conference of Asian Society of Arachnology. 16-19 Nov. 2015, Amravati.
- 26) "Conserve the spiders for beautiful nature and bright future", National Conference on "Recent Trends in Conservation of Biodiversity", 12 March 2016, S.S.S.K.R. Innani Mv. Karanja-Lad (Washim).

- 27) "Spider silk-an ancient material of the future", International Conference on "Innovations in Science and Technology: Opportunities and Challenges", 23-24 Sept., 2016, College of Engg. And Tech., Akola.
- 28) "Medicinal prospects for major ampullate silk of giant wood spider, *Nephila Pilipes*", International Conference on "Recent Trends in Science and Technology: Sustainable Development Through Scientific Approach", 12-14 July, 2017, Shri Shivaji Education Society's Science College, Nagpur.
- 29) "X- ray diffraction study of dragline silk of *Nephila pilipes* (Araneae: Araneidae)", International Conference on "Advances in Science, Technology and Management", 10 Oct., 2017, College of Engineering and Technology, Akola.
- 30) "Characterization of Sb₂S₃ nanoparticles by chemical precipitation method", National Conference on "Recent Advances in Chemical Sciences", 26-27, Feb. 2018, Shri Shivaji College of Arts, Commerce & Science, Akola.
- 31) "AFM study of egg sac silk fibers of the giant wood spider *Nephila pilipes*", International Conference on "Multifunctional Advanced Materials", Oct. 5-7, 2018, Kamla Nehru Mahavidyalaya & Dharampeth M.P. Deo Memorial Sci. College, Nagpur.
- 32) "Structural and optical properties of antimony trioxide nanoparticles prepared by chemical precipitation method", National Conference on "Emerging Trends in Sciences", Feb. 1-2, 2019, Vidya Bharati Mahavidyalaya, Amravati.
- 33) "Orb web features of giant wood spider *Nephila pilipes*", National Conference on "Emerging Trends in Sciences", Feb. 1-2, 2019, Vidya Bharati Mahavidyalaya, Amravati.
- 34) "Structural and optical properties of nanostructure zirconium disulphide thin film grown by SILAR method", National Conference on "Recent Advances in Science and Technology", March 5-6, 2019, Gopikabai Sitaram Gawande Mahavidyalaya, Uamarkhed.
- 35) "Characterization of nanostructured cobalt sulphide thin film grown by SILAR method" National Symposium on "Innovative Materials and Devices", June 24-25, 2019, S.G.B. Amravati University, Amravati and Shri Shivaji Science College, Amravati.
- 36) "Structural analysis of silk of *Nephila pilipes* with FTIR spectroscopy", National Conference on "Recent Advances in Physical and Mathematical Sciences", Jan. 18, 2020, Shri Shivaji College of Arts, Commerce & Science, Akola.
- 37) "Structural and optical properties of nanostructured manganese disulphide thin film grown by SILAR method", National Conference on "Recent Advances in Physical and Mathematical Sciences", Jan. 18, 2020, Shri Shivaji College of Arts, Commerce & Science, Akola.

c-D) Books Published: (01)

Sr. No.	Title of Book	Name of Publication	Year of Publication	ISBN No.
1	A Text Book of Physics- Kinetic Theory, Thermodynamics and Electric Currents, B. Sc. I Semester II	Nabh Prakashan, Amravati	2017	978-81-905776-102-6

12. Seminars/ Conferences/ Symposia/Orientation/Refresher Courses attended and organised:

12-A) Seminars/ Conferences/ Symposia organized:

Sr. No.	Name of conference/Programmes organized	Place	Date
1	U.G.C.Sponsored National Seminar on "Current Trends in Physical Sciences & Electronics Research" (Organizing Secretary)	Shri Shivaji College of Arts, Commerce & Science, Akola	March 28, 2010

12-B) Seminars/ Conferences/ Symposia/Orientation/Refresher Courses attended :

Sr No	Name of conference/Programmes attended	Place	Date
1.	Indian Society for Technical Education, XXII Annual Convention.	Shri G.S. Institute Technology & Science, Indore.	Dec.26-28, 1992
2.	II National Conference on "Educational Technology for Higher Technical Education and Training".	S.S.G.M. College of Engineering, Shegaon.	Jan. 22-23, 1994
3.	Induction Phase I Training	Govt. Polytechnic, Amravati.	Nov.02-27, 1998
4.	Induction Phase II Training	Govt. Polytechnic, Amravati.	Oct.12Nov. 06, 1999

5.	National Conference on “Recent Trends in Composites”	P.G. Department of Physics Shri Shivaji Science College, Amravati	Feb 28-Mar 02 , 2001
6.	National Conference on “Lasers and Their Applications”.	Department of Physics, Amravati University, Amravati	Jan 28-30, 2004
7.	International Conference on Relativity	P.G.T.D. of Mathematics, Amravati University, Amravati	Jan.11-14, 2005
8.	Workshop on “Scope & Limitations of B.Sc. III (Physics) Syllabus”.	Department of Physics, Amravati University, Amravati	Jan. 30, 2005
9.	National Conference on “Luminescence & Its Applications”.	S.G.B.Amravati University, Amravati	Feb.07-09, 2006
10.	S.G.B.Amravati University Youth Festival 2006	Janta College, Malkapur (Buldana)	Sept.27-30, 2006
11.	Inter Collegiate Seminar Competition	S.S.K.R.Innani Mahavidyalaya, Karanja Lad	Jan. 03, 2007
12.	National Seminar on “Advanced Materials”.	Department of Chemistry, R.T.M. Nagpur University, Nagpur	Feb.12, 2007
13.	U.G.C. Sponsored Workshop on “Development & Implementation of Question Bank”.	S.G.B.Amravati University, Amravati	Mar.30-31, 2007
14.	U.G.C. Sponsored 59 th Orientation Programme	U.G.C. Academic Staff College, R.T.M. Nagpur University, Nagpur	Feb.20 -Mar.18 , 2008
15.	National Seminar on “Current Trends in Chemical Sciences Research”	Department of Chemistry, Shri Shivaji College of Arts, Commerce & Science, Akola	March 28, 2008
16.	U.G.C./D.R.D.O.Sponsored State Level Seminar on “Recent Trends In Teaching Basic and Applied Sciences”.	Phulsing Naik Mahavidyalaya, Pusad (Yavatmal)	Jan.3, 2009
17.	U.G.C. Sponsored National Seminar on “Information Technology Enabled Services-2009”.	Department of Computer, Shri Shivaji College of Arts, Commerce & Science, Akola	April 11, 2009
18.	Workshop on “Pure Physics Curricula in Contemporary Universities: Challenges and Innovations and Convention of Physics Teachers”.	Vidya Bharati Mahavidyalaya, Amravati	April 26, 2009
19.	U.G.C. Sponsored Refresher Course in Basic Sciences (Physics)	U.G.C. Academic Staff College,S.G.B. Amravati University, Amravati	May 28-June 14, 2009
20.	National Seminar on “Dr.B.R. Ambedkar’s Economic Philosophy and Indian Economic Policy in the Global Scenario”.	Shri Shivaji College of Arts, Commerce & Science, Akola	Oct.24, 2009
21.	State Level Seminar in Mathematics on “Expanding Wings of Mathematics in the Field of Science & Social Sciences	Department of Mathematics, Shri R.L.T.College of Science, Akola	Jan.0 4,2010
22.	National Conference on “Materials Science: Trends & Future-2010”.	Vidya Bharati Mahavidyalaya, Amravati	Jan.06-07, 2010
23.	U.G.C.Sponsored National Level Seminar on “Water, Energy, Environment and Society”.	Phulsing Naik Mahavidyalaya, Pusad(Yavatmal)	Jan. 30, 2010
24.	One Day Workshop on Impedance Analyzer	S.G.B. Amravati University, Amravati	Feb.09, 2010
25.	U.G.C.Sponsored National Conference on “Advances in Material Research”.	Department of Physics & Chemistry, Shankarlal Khandelwal College, Akola	Feb.26-27, 2010
26.	U.G.C.Sponsored National Seminar on “Current Trends in Physical Sciences & Electronics Research”	Department of Physics & Electronics, Shri Shivaji College of Arts, Commerce & Science, Akola	March 28, 2010
27.	A Seminar on “Current Challenges in Physics Education” and Annual Convention of AUPTA	Shri Shivaji Science College, Amravati	April 25, 2010
28.	U.G.C. Sponsored National level Conference on “Developing Frontiers of Physics, Astronomy & Space Sciences”	Department of Physics & Mathematics, Shri R.L.T.College of Science, Akola	Sept 24-25, 2010
29.	U.G.C.Sponsored National Conference on	Department of Physics,	Feb.21-22,

	“Nanoscience and Technology”	Shri Shivaji Education Society’s Science College, Nagpur	2011
30	U.G.C.Sponsored State Level Workshop on “Research Methodologies in Science”	Shankarlal Khandelwal College, Akola	Feb.26, 2011
31	U.G.C.Sponsored National Seminar on “Mahatma Gandhi & Pt. Jawaharlal Nehru’s Thoughts on Socio-economic and Political Issues.”	Shri Shivaji College of Arts, Commerce & Science, Akola	Feb.28, 2011
32	U.G.C.Sponsored National Conference on “Advanced Technologies in Material Science & Their Applications”	Department of Physics & Chemistry, Arts, Commerce & Science College, Arvi (Wardha)	March 06, 2011
33	U.G.C. Sponsored National Conference on “Advances in Life Sciences for Sustainable Rural Development”	Department of Microbiology and Zoology, Shankarlal Khandelwal College, Akola	Oct.11-12, 2011
34	National Seminar on “Current Trends in Material Science-2011”	Department of Physics, Shri Dr.R.G. Rathod Arts & Science College, Murtizapur	Dec.03, 2011
35	Regional level Interdisciplinary Workshop on “Research Methodology”	Department of Commerce & Management , Takshashila Mahavidyalaya Amravati	Dec.30, 2011
36	Workshop on “Information and Technology Training”	Shri Shivaji College of Arts, Commerce & Science, Akola	Jan.16, 2011
37	U.G.C.Sponsored Interdisciplinary International Conference on “Dr. Ambedkar’s Buddhism and its Emancipatory Potential	Shri Shivaji College of Arts, Commerce & Science, Akola	Jan.27-28, 2011
38	Workshop on “Sant Gadge Baba’s Dashasutri and Rashtasant Tukdoji Maharaj’s Gramgeeta”	Shri R.L.T.College of Science, Akola	Feb.7, 2012
39	National Seminar on “Technological Innovations with Environmental Integrity”	HVPM’s College of Engineering and Technology, Amravati	Feb.28, 2012
40	National Conference on “Role of Basic Sciences in Emerging Industrial Scenario”	Prof. Ram Meghe Institute of Technology and Research, Badnera, Amravati	March 08, 2012
41	National Conference on “Lasers and Advanced Materials”.	S.G.B. Amravati University, Amravati	May 29-30, 2012
42	National Conference on “Innovative Research Trends in Biological Sciences”	Shri Shivaji College of Arts, Commerce & Science, Akola,	Sept.08-09, 2012
43	Interdisciplinary National Seminar on “Impact of Climate Change on Agriculture Production in India”	Shri Shivaji College of Arts, Commerce & Science, Akola	Oct.06, 2012
44	Interdisciplinary International Conference on “Relevance of Dr. Babasaheb Ambedkar, Mahatma Gandhi and Pandit Nehru’s Ideology in the Present Scenario”	Shri Shivaji College of Arts, Commerce & Science, Akola	Oct.29-30, 2012
45	II World Congress for Man & Nature-2012 on “Global Change: Impact on Biodiversity, Culture & Technology”	Sevadal Mahila Mahavidyalaya, Nagpur	Nov.03-05, 2012
46	National Conference on “Recent Initiatives towards Green Electronics”	Brijlal Biyani Science College, Amravati	Feb.08-09, 2013
47	18 th One Day Physical Education Teachers conference	Shri Shivaji College of Arts, Commerce & Science, Akola	March 17, 2013
48	Workshop on “Effective Communication Skills in English for Senior College Teachers”	Shri Shivaji College of Arts, Commerce & Science, Akola	April 05-13, 2013
49	Workshop on “Information and Communication Technology”	Shri Shivaji College of Arts, Commerce & Science, Akola	April 05-20, 2013
50	National Conference on “Upcoming Trends in Chemical Science	Shri Anand College of Science, Pathardi (Ahmednagar)	Sept.06-07, 2013
51	Orientation Workshop on “Eyes on ISON”, Comet of the century.	Shri Shivaji Science College, Amravati	Oct.19, 2013
52	National Conference on “Materials Science: Trends and Future”.	Bhartiya Mahavidyalaya , Amravati	Jan.10-11, 2014
53	State level Seminar on “Exploration of Biochemistry and Molecular Biology for	Arts and Science College, Pulgaon (Wardha)	Jan.29, 2014.

	Betterment of Human Life”.		
54	National Conference on “Recent Trends in Mathematics, Physics & Their Applications”.	Shankarlal Khandelwal College, Akola	March19, 2014
55	National Level Two Days Laboratory Workshop On Physics For UG Teachers	Shri Shivaji Science College, Amravati	June 27-28, 2014
56	Workshop on “Spectroscopic & Stereospecific Perspectives of Chemistry”	Shri R.L.T.College of Science, Akola	Oct.2, 2014
57	National Symposium Cum Workshop on “Diversity of Spiders with Special Reference to Taxonomy and Molecular Systematics”.	Shankarlal Khandelwal College, Akola	Nov.26-29, 2014
58	Short Term Course in Nano Biotechnology (For all Science Subjects-ID)	U.G.C. Academic Staff College,S.G.B. Amravati University, Amravati	Dec.15-20, 2014
59	Workshop on “Role of Stakeholder in IQAC and NAAC”	Shri R.L.T.College of Science, Akola	Jan.28, 2015
60	State level Seminar on “Role of IQAC in Quality Enhancement in Higher Education”	Shri Shivaji College of Arts, Commerce & Science, Akola	April17, 2015
61	3 rd Conference of Asian Society of Arachnology.	Amravati	Nov.16-19, 2015
62	National Conference on “Recent Trends in Conservation of Biodiversity”.	S.S.S.K.R. Innani Mahavidyalaya, Karanja-Lad (Washim)	March12, 2016
63	International Conference on “Innovations in Science and Technology: Opportunities and Challenges” .	College of Engineering and Technology, Akola	Sept.23-24, 2016
64	One Day Workshop on “I for Inclusion: Higher Education Module” (Understanding Inclusion and Access at Higher Education)	Shri Shivaji College of Arts, Commerce & Science, Akola	Jan.20, 2017
65	International Conference on “Recent Trends in Science and Technology: Sustainable Development Through Scientific Approach” .	Shri Shivaji Education Society’s Science College, Nagpur	July 12-14, 2017
66	University Level Workshop on “Credit, Grade and Semester System Introduced bu SGBAU and Maharashtra Public University Act, 2016”	Shri Shivaji College of Arts, Commerce & Science, Akola	July 22, 2017
67	One Day Workshop on “NAAC Assessment and Accreditation Process”	Shri R.L.T.College of Science, Akola	July 23, 2017
68	International Conference on “Advances in Science, Technology and Management” .	College of Engineering and Technology, Akola	Oct. 10, 2017
69	National Conference on “Recent Advances in Chemical Sciences”.	Shri Shivaji College of Arts, Commerce & Science, Akola	Feb.26-27, 2018
70	One Day Workshop on “Performance Based Appraisal System, PBAS –API”	Arts, Commerce & Science College, Amravati	June 26, 2018
71	One Day National Workshop on “Art of Perfume and Soap Making”	Shri R.L.T.College of Science, Akola	Sept.08, 2018
72	International Conference on “Multifunctional Advanced Materials” .	Kamla Nehru Mv & Dharampeth M.P. Deo Memorial Sci. College, Nagpur	Oct.05-07, 2018
73	National Conference on “Emerging Trends in Sciences” .	Vidya Bharati Mahavidyalaya, Amravati	Feb.01-02, 2019
74	National Conference on “Recent Advances in Science and Technology”.	Gopikabai Sitaram Gawande Mahavidyalaya, Uamarkhed	March 05-06, 2019
75	One Day Regional Level Workshop on “New Accreditation Methodology: An Overview”	Shri Shivaji College of Arts, Commerce & Science, Akola	March 28, 2019
76	National Symposium on “Innovative Materials and Devices”.	S.G.B. Amravati University, Amravati and Shri Shivaji Science College, Amravati	June 24-25, 2019
77	National Conference on “Recent Advances in Physical and Mathematical Sciences”.	Shri Shivaji College of Arts, Commerce & Science, Akola	Jan.18, 2020
78	One Day International Conference on “Impact of Values based on M. K. Gandhi, Pt., J. Nehru, Dr. B. R. Ambedkar and Dr. Panjabrao Deshmukh’s Philosophies in present situation”	Shri Shivaji College of Arts, Commerce & Science, Akola	Jan. 21, 2020
79	National Conference on “Multidisciplinary Research in Science and Technology for	Shri R.L.T.College of Science, Akola	Jan. 24, 2020

	Healthy Lifestyle Management”		
80	“NAAC Awareness Programme for Faculty”	Mungsaji Maharaj Mahavidyalaya, Darwha (IQAC)	May 13, 2020
81	International Web Conference on “Science, Engineering and Technology”	Society for Technologically Advanced Materials of India(STAMI), Nagpur	May 15-16, 2020
82	Webinar on “NAAC Awareness Program for Affiliated Colleges”	Shri Shivaji Arts and Commerce, Amravati (IQAC)	May 22, 2020
83	One Week Short Term Course on “Renewable Energy and Utilization”.	Sandip Institute of Engineering and Management, Nashik	May 26-30, 2020
84	National Level Webinar on “ICT for Effective Teaching and Learning”	Shri R. R. Lahoti Science College, Morshi	June 02, 2020
85	One Week FDP on “E-Content Development in Teaching”	Saraswati Kala Mahavidyalaya, Dahihanda, Akola	June 04-10, 2020
86	One Day National Level Webinar on “Documentation for Data Validation and Verification (DVV) and Peer Team Visit (PTV) NAAC”	Mahatma Phule Mahavidyalaya, Kingaon (Ta-Ahmedpur Dist-Latur)	June 15, 2020
87	One Day International e-Conference Assimilation of Knowledge on “Recent Advances in Nonmaterial’s during COVID-19”	Smt. Radhabai Sarada Arts, Commerce and Science College, Anjangaon Surji	June 16, 2020
88	One Day National Level Webinar on “Recent Trends in Nanotechnology and its Applications”	S.S.S.K.R. Innani Mahavidyalaya, Karanja-Lad (Washim)	June 17, 2020
89	Online Lecture on “Light and Einstein’s $E = mc^2$ ” By Prof. Ajoy Ghatak, Meghnad Saha Professor, The National Academy of Sciences, India	IAPT (RC-1) Regional Council, Delhi & Haryana	June 20, 2020
90	Online District Level “NAAC Awareness Workshop”	Shri Shivaji College of Arts, Commerce & Science, Akola	June 23, 2020
91	NAAC Awareness Webinar on “Revised Assessment and Accreditation Framework of NAAC”	G. S. Science, Arts and Commerce College, Khamgaon	June 24, 2020
92	International Web Symposium on “Biomedical Instrumentation :A Boon to Healthcare Industry-2020”	Shri Mathuradas Mohota College of Science, Nagpur	June 25-27, 2020
93	National Level FDP on: G. Suite and Allied Tools in Education, Teaching and E- Content Development”.	Sant Gadge Baba Amravati University, Amravati	June 29-July 04, 2020
94	International Conference on “Recent Trends in Advanced Materials-2020”	N.H. College Bhamhapuri, B.S. Arts, Prof.N.G. Science & A.G. Commerce College, Sakharkheda & Shri S.G.M. Mahavidyalaya, Hingna, Nagpur	July 06, 2020
95	One Day Webinar on “Teaching , Learning & Evaluation Using e-Tools”	Hislop College, Nagpur	July 10, 2020
96	Online International Conference on “Advance Materials, Smart Future”	Shri L.P. Mahavidyalaya, Mandhal, (Ta-Kuhi) Dist-Nagpur & Shri S.G.M. Mahavidyalaya, Hingna, Nagpur	July 11, 2020
97	International Webinar on “Advanced Materials for Sustainable Development”	Chouksey Group of Colleges, Bilaspur (C.G.) M.P.	July 12, 2020
98	UGC (Paramarsh) Online FDP on “ICT in Teaching and Evaluation”	Shri Shivaji College, Parabhani	July 13-18, 2020
99	National Webinar on “Application of Fibrous Materials for Energy Storage”	JSS Academy of Technical Education , Nolida	July 20, 2020
100	One day National e-Conference on “Emerging Trends in Physical Sciences”	Arts, Science and Commerce College, Ramanandnagar(Burli) Dist- Sangli	July 22, 2020
101	One Day National webinar on “Recent Developments in Material Science and Nanotechnology”	Arts, Commerce and Science College, Kille- Dharur Dist Beed.	July 23, 2020

102	International Webinar on “Present Scenario Material Science”	Nilkanthrao Shinde Science and Arts College , Bhadrawati Dist-Chandrapur	July 24, 2020
103	International Web Conference on “ Recent Advances in Science”	Don Bosco College, Tura (Meghalaya)	July 30-31, 2020
104	National e-Conference on “Recent Advances in Materials Science and Nanotechnology”	Y. C. College of Arts, Commerce & Science, Sillod (Aurangabad)	August 01-02 , 2020
105	International E-Conference on “Multifunctional Advanced Materials”	Mahatma Gandhi Arts, Science & Late N. P. Commerce College, Armori (Chandrapur)	August 07, 2020
106	National Level Webinar on “Recent Advances in Nanotechnology”	Shri Shivaji Science and Arts College, Chikhli	August 08 2020
107	International e-Conference on “Recent Trends in Material Science”	Shree Shivaji Arts, Commerce & Science College, Rajura (Chandrapur)	August 10 2020
108	National Level Webinar on “National Education Policy 2020-A Review”	Jain School of Commerce (Jain Deemed to be University)	August 14, 2020
109	Faculty Development Programme on “Online teaching Tools”	Rajah Serfoji Govt. College, Thanjavur (Tamilnadu)	August 18, 2020
110	National Webinar on “Physics of Nonmaterial Characterization”	Jaysingpur College, Jaysingpur (Kolhapur)	August 21, 2020
111	National Webinar on “National Education Policy-2020”	Shivaji University, Kolhapur	August 23, 2020
112	National E-Conference on “Recent Progress in Physical Science”	Tarkeswar Degree College, Tarkeswar, Hooghly (West Bengal)	August 31, 2020
113	National Workshop on “Online Assessment Tools”	Tumkur University Teacher Educators’ Association (TUTEA), Tumakuru (Karnataka)	Sept. 27, 2020
114	8 th Annual Convention of IAPT (RC-8: Delhi & Hariyana)	Indian Association of Physics Teachers(Delhi & Hariyana)	Oct. 10-11, 2020
115	National Webinar on “Instrumental Methods of Analysis”	Association of Chemistry Teachers(ACT) Mumbai & Kamla Nehru Mv. , Nagpur	Oct. 17-18, 2020
116	U.G.C. Sponsored Online Workshop on “Green and Energy Audit”	Shri Shivaji College, Parbhani	Dec. 10, 2020
117	International Webinar on “Innovations in Science and Technology”	Narsamma Arts, Commerce & Science College, Amravati & ACT,Mumbai	Feb. 27, 2021
118	International Webinar on “Multidisciplinary Research “	Gurunanak College of Science, Ballarpur	March 13, 2021
119	International Webinar on “Sustainable Chemistry”	Association of Chemistry Teachers (ACT), Mumbai	March 18, 2021
120	National Level FDP on “Research Methodology”	Kamla Nehru Mahavidyalaya, Nagpur	April 26-May 01, 2021
121	National Online FDP on “ICT Tools for Effective Teaching Learning”	Kamla Nehru Mahavidyalaya, Nagpur	June 08-10, 2021
122	National Webinar on “Nanomaterials in the Service of Mankind”	G. H. Rasoni Institute of Engineering & Technology, Nagpur	July 30, 2021
123	Workshop on “Performance Based Appraisal System (PBAS)”	Shri Shivaji College of Arts, Commerce & Science, Akola	July 31, 2021

13. Research Projects Completed / Ongoing:

Sr. No.	Title of the project	Name of the funding agency	Duration	Remarks
1	Conductivity and Thermally Stimulated Discharge Current Studies in Semi conducting Glasses.	University Grants Commission (Rs. 1,10,000/-)	Two Years (2009-11)	Completed (Investigator)
2	Study of Web Architecture, Silk, Silk Glands and Spinnerets of Giant Wood Spider, <i>Nephila pilipes</i> . (Co-Investigator)	University Grants Commission (Rs. 1,35,000/-)	Two Years (2013-15)	Completed (Co-Investigator)

14. Teaching Experience:

Courses Taught	Name of the University/ College/ Institution	Duration
UG	Shri. Shivaji College Of Arts, Commerce & Science, Akola	17 Years
PG	Shri. Shivaji College Of Arts, Commerce & Science, Akola	15 Years
Diploma Courses in Engineering	Vidarbha Youth Welfare Society's Polytechnic Badnera (Amravati)	18 Years & 4 Months

15. Innovations/ Contributions in Teaching:

a) Design of Curriculum: -

- i) Suggestions to S.G.B. Amravati University Teachers Association (AUPTA) and members of BOS for Design of Curriculum.
- ii) Participation in Design of Curriculum (UG & PG) of Government Vidarbha Institute of Science and Humanities, Amravati (An autonomous institute of Govt. Of Maharashtra) as a member of Board of Studies in Physics and Electronics.

b) Teaching Methods:-

- i) Use of Lecture method, Laboratory method, Project method, Group discussion, Assignment and seminar etc. for effective teaching and learning.
- ii) Topics from unit are announced in advance for discussion in the class so that students can refer text books, reference books & keep themselves ready for lectures.
- iii) Use of audio visual teaching aids like LCD/DLP projectors, CDs, etc.

c) Laboratory Experiments:-

Design and setting of new experiments, Design of Experiment Kits/study boards (Modules) for conducting practicals.

d) Preparation of resource materials:-

Preparation of Unit wise notes, laboratory manuals

e) Remedial teaching

Special guidance to weak students/ poor students during free time.

f) Extension activities/ consultancy/ community works:

- i) Worked as a examiner for various Tahasil, Distict, Regional, State Level and Inspire Award Science Exhibitions
- ii) Worked as a Presiding/Polling officer for ZP/Panchayat samiti, Assembly and Loksabha Elections.
- iii) Donations to CM relief funds, Shri Shivaji Education Society, Amravati and Flag Day Fund, contribution to poor boys fund and fund for awarding prizes to students.
- iv) Worked as a Judge for Poster paper presentation session of National Seminar on "Current Trends in Materials Science" on Dec. 3, 2011 organized by Shri Dr. R. G. Rathod Arts and Science College, Murtizapur.
- v) Worked as a Judge for Poster paper presentation session of National Seminar on "Technological Innovations with Environmental Integrity" on Feb. 28, 2012 organized by College of Engineering and Technology, Amravati.
- vi) Worked as a Reviewer for Research Papers of National Conference on "Lasers and Advanced Materials" on May 29-39, 2012 organized by S. G. B. Amravati University, Amravati.
- vii) Worked as a Resource Person in Model Upgradation Workshop for State Level Science Exhibition- 2017 on Jan. 14, 2017 at New English High School, Akola.
- viii) Worked as a Judge for Poster paper presentation session of International Conference on "Recent Trends in Science and Technology Sustainable Development Through Scientific Approach" on July 12-14, 2017 organized by Shivaji Science College, Nagpur.
- ix) Worked as a Judge for Oral paper presentation session of National Conference on "Emerging Trends in Science" on Feb. 1-2, 2019 organized by Vidya Bharati Mahavidyalaya, Amravati.

16. Role in college activities :

- i) Co-ordinator for Student's Teacher Guardian Scheme (2007 to 2020).
- ii) Convener of Cleanliness committee for Satpuda Building.
- iii) Convener of attempt certificate issue committee.
- ii) Co-ordinator of Hiroshima day and National science day committee (2018-19)
- iii) Member of admission committee for UG & PG, Admission register verification committee, Student attendance committee, Science Exhibition committee, District Level Avishkar committee, Energy audit committee, Stock verification committee, Dr. Panjabrao Deshmukh Jayanti utsav committee. Youth festival committee. Hiroshima day

17. Role in university activities:

- i) Internal and External Examiner for conducting S.G.B. Amravati University Practical Examinations.
- ii) Paper Setter and Valuer (UG & PG) for S.G.B. Amravati University Examinations and College Test Examinations for Internal assessment.
- iii) Invigilator for University and College Test examinations.
- iv) Seminar Activity and Project Work of UG students for Internal Assessment.
- v) Valuation Officer of S.G.B. Amravati University Central Assessment Centre, Sub centre at Shri Shivaji College, Akola for Winter 2015 Examination.
- vi) Worked as a Officer Incharge for Sant Gadge Baba Amravati University Theory Examination Summer 2018.
- vii) Worked as a member of University Local Enquiry Committee (LEC).
- viii) Member of various University Placement committees as subject expert/ VC nominee
- ix) Member of University Selection Committee for recruitment Assistant Professors as Subject Expert/VC's nominee.