

## Dr. Vishwas Bhaskarrao Gaikwad

M.Sc., M.Phil., Ph.D.

Principal, K. T. H. M. College, Nashik

NAAC Re-accredited in **third cycle** with **A++ grade (CGPA of 3.79) Highest in Maharashtra** in Sept. 2017

Member, Senate and Management Council, Savitribai Phule Pune University, Pune

Former Director, Board of College and University Development (BCUD)

Savitribai Phule Pune University Ganeshkhind, Pune - 411007. India.

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Date of Birth: 27<sup>th</sup> February 1958



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### ❖ Educational qualifications

- Bachelor of Science (B.Sc.) Chemistry
- Masters of Science (M.Sc.) Chemistry
- Master of Philosophy (M.Phil.) Chemistry
- Doctor of Philosophy (Ph.D.) Environmental Science

### ❖ Field of Specialization

Material Chemistry, Gas sensing, Environmental Chemistry, Green Chemistry, Nanotechnology, Bioremediation, Instrumentation.

### ❖ Research Profile

- **Google Scholar Citations** : 1712
- **h- index** : 21
- **i10-index** : 40
- **Recognized research guide**, Savitribai Phule Pune University, Pune (2003-2022)
- **Ph.D. degree awarded** : 16 as guide
- **Ph.D. degree awarded** : 14 as co-guide
- **Ph.D. student working** : 05
- **M. Phil degree awarded** : 06
- **M. Phil student working** : 01
- **Books authored** : 19
- **Research Paper**
  - **International** : 84
  - **National** : 12
  - **Book Chapter** : 15

### ❖ Resource Person

- **International Conferences** : 19
- **National Conferences** : 28
- **UGC sponsored Refresher Courses** : 30

### ❖ Current Academic Positions:

- **Member, Management Council, Savitribai Phule Pune University, Pune (2017-2022)**
- **Member, Senate, Savitribai Phule Pune University, Pune.**
- **Member, Colleges with Potential for excellence (CPE), UGC, New Delhi.**

- **Assessor, NAAC Peer Team, Bangalore**
- Member, Research and Recognition Committee, Gondwana University, Gadchiroli

❖ **Teaching, Administrative and Research Experience: 39 years**

- Principal, K.T.H.M. College, Nasik, from February 2017 till date
- **Director, BCUD, SPPU, Pune from June 2012 to February 2017**
- Principal, K.T.H.M. College, Nasik, from November 2002 to May 2012
- Principal, Arts, Commerce and Science College, Nandgaon, from Sept. 1997 to October 2002
- Principal, Arts, Commerce and Science College, Ozar, from October 1996 to September 1997
- Lecturer, K.T.H.M. College, Nasik, July 1983 to September 1996
- Lecturer, Ahmednagar College, Ahmednagar, August 1981 to June 1983

❖ **AWARDS, HONOURS AND PRIZES**

- **'Best Teacher Award' by Govt. of Maharashtra, 2011**
- **'E-Governance Award' by Govt. of Maharashtra for automation of the various process of admission, affiliation, examination, migration, 2013**
- 'Best Principal Award' by University of Pune, 2007
- 'Best Principal of the Year' by Australian Chemical Society, 2006
- **'Best Chemistry Teacher Award' at National Level organized by TATA Chemical, NCL, CSIR and BRNS on International Chemistry Year.,2011**
- 'Best Oral Presentation Award' in 5th International Conference on Sensing Technology (ICST-2011) Massey University, Palmerston North, New Zealand, 2011
- 'Best Principal Award' by Maratha Vidya Prasarak Samaj, Nashik, 2017
- State Level 'Girna Gaurav Award' for outstanding work in the field of education 2011
- Acharya Devendra Gaurav Award' for the contribution in the field of Education and Social work, 1999

❖ **Noteworthy Academic and Administrative positions held at UGC/University/ College level**

- **Director, Board of College and University Development (BCUD), Savitribai Phule Pune University, Pune (2012-2017)**
- **Member, Management Council, Savitribai Phule Pune University, Pune (2011-15)**
- Dean, Faculty of Science, Savitribai Phule Pune University, Pune (2006-10, 2017-18)
- Member, Senate, Savitribai Phule Pune University, Pune (1995-2000, 2005-10, 2011-15)
- Member, Academic Council, Savitribai Phule Pune University, Pune (2005-10, 2011-15)
- Controller of Examination (COE), Additional Charge, Savitribai Phule Pune University, Pune (April 2014 – Jan 2015)
- Member, UGC Interface Committee for Gujarat State (XI plan) Development / PG Grants
- Member, Working Group to shortlist/scrutinize the proposals received under UPE Scheme of UGC (2014)
- Member, Advisory Committee, Academic Staff College (UGC), Savitribai Phule Pune University, Pune, (2004-06)
- Chairman, Board of College and University Development (BCUD) subcommittee, Savitribai Phule Pune University, Pune, (2008-10)
- Director, University's Nashik Sub-center, Savitribai Phule Pune University, Pune (2012-15)

- Chairman, Sub-committee to oversee the administration of Avishkar-2013 constituted by Hon. Governor & Chancellor of Universities in the Maharashtra (2013, 2016)
- President, Hydrological Data Users Group (HDUG), Maharashtra State
- Chairman, Research and Recognition Committee, Yashwantrao Chavan Maharashtra Open University (YCMOU) (2005-07)
- Member, Board of Examination (BOE), Savitribai Phule Pune University, Pune (2006-10)
- Member, Board of Studies (Chemistry), Savitribai Phule Pune University, Pune (1995-2000, 2006-10, 2010-15)
- Member, Grievances Committee for Avishkar (2012-13)
- Member, Colleges with Potential for Excellence (CPE), UGC, New Delhi
- Member, Faculty of Science, North Maharashtra University, Jalgaon (2005-10)
- Member, Advisory Committee, BRNS Bhabha Atomic Research Center, Mumbai (2008-09)
- Education Officer, MVP Samaj, Nashik (1992 to 1997)

#### ❖ **Role on different Advisory Bodies**

- Member, Governing Body of VIT College of Engineering, Pune
- Member, Governing Body of Cummins College of Engineering for women, Pune
- Member, Governing Body of MIT College of Engineering, Alandi
- Member, Governing Body of Guru Govind College of Engineering, Nashik

#### ❖ **Overall Impact as Director, BCUD, Savitribai Phule Pune University, Pune (June 2012-February 2017)**

- **Major role in A+ NAAC accreditation of the university**
- Effective role in securing 10<sup>th</sup> position of University in NIRF ranking framework
- Contribution in availing UGC-UPE, DST-PURSE, DBT, SAP, CAS grants from various apex bodies of MHRD
- Coordinated and utilized grants of different schemes with effective planning
- Initiatives for the establishment of in house IT cell
- Automation of administration through established IT cell
- Active role in Implementation of Choice Based Credit System for all PG level programmes from Academic year 2013-14 and at UG level from 2015-16
- Proactive participation for implementing 10 Credit Skill Based Course at all PG level from Academic Year 2013-14
- Active role for establishing Skill Development Centre at SPPU University Campus
- Guided for signing of MoU's with 19 Foreign Universities, 26 Indian Universities and Institutions for Joint Research Project, Students Exchange, Faculty Exchange, Teacher Training Programme.
- Initiated and implemented the concept of establishing Central Instrumentation Facility at Ahmednagar and Nashik Sub-centres for housing highly Sophisticated Instruments available for research students and teachers
- Co-ordinator for Avishkar research project competition of S.P. Pune University: Won State level general championship for four times
- Encouraged College and University teachers to avail BCUD Research Projects Schemes
- Coordinated "Anveshan 2012-13" (Fourth Student Research Convention) Organized by Association of Indian Universities, New Delhi
- Successful implementation of "Quality Improvement Programme" scheme
- Initiative to start skill based B.Voc. programmes at University Campus

❖ **Overall Impact in capacity of Principal, KTHM College, Nashik (October 1996 to June 2012; February 2017 till date)**

- **NAAC Re-accreditation at Third Cycle A++ level with CGPA of 3.79 in September 2017.**
- **Best College Award by SPPU, Pune in year 2017**
- NAAC Re-accreditation at 'A' level with CGPA of 3.30 in April 2011
- NAAC Accreditation at 'A' level in Jan 2004
- **Contribution in availing UGC-CPE, DST-FIST, DBT Star, UGC BSR grants from various apex bodies of MHRD**
- Coordinated and utilized grants of different schemes with effective planning
- **Initiative to start skill based B.Voc. programmes at College Campus**
- Established competitive examination guidance cell
- Established Central Instrumentation Facility with highly sophisticated instruments
- Established Weather Station, GIS laboratory, Energy laboratory
- Established Virtual Learning Center and e-learning facility
- Wi-Fi Campus
- Promoting research through Minor and Major Research Project from UGC, CSIR, DST, SPPU etc.
- Creation and augmentation of state of art infrastructure, learning resources and sports facilities
- Introduced Professional Programmes like Biochemistry, Biotechnology, Mass Communication and Journalism, Computer Science and Electronics at UG/PG level and Laboratories for these courses
- Instrumental role in establishing Ph.D. Research Centers in the subjects Chemistry, Physics, Zoology, Botany, Economics, Commerce, Marathi, English, Environmental Science, Microbiology

❖ **Academic/administrative responsibilities**

- Organized UGC sponsored Orientation Programmes, Refresher Courses, Faculty Development Programmes, TLC and Teachers Enrichment Programmes in various disciplines
- Organized International, National and State Level Conferences, Seminar, Workshops
- Principal's Conference sponsored by UGC and Savitribai Phule Pune University
- Director of CAP programmes of Savitribai Phule Pune University conducted at college.
- Organized CAS programmes for Nashik District

❖ **College Achievements**

- Six times General Championship of Sports of University
- Best NSS Unit, Best Programme Officer, Best Volunteer awards of University
- Best Board of Student Welfare Unit, Best Coordinator, Best Volunteer awards of University
- **Third Phase of CPE, Second Level of DST-FIST and Second Stage of DBT**

❖ **Collaboration / linkages established- International/ National**

- Department of Organic and Bio-organic Chemistry, University of Graz,
- Austria-Research Collaboration: One student got opportunity to work in Austria for one year under fellowship of Government of Austria
- Department of Sociology, University of Sussex, England
- Memorandum of understanding with Electronic Science Department and University of Taipai, Taiwan
- National Chemical Laboratory (NCL) Pune- for literature search and analytical data
- National Institute of Pharmaceutical Education and Research (NIPER), Mohali, Chandigarh-For Research training and biological screening

- Dept of Chemistry, University of Pune, Pune-Research collaboration
- IIT- Powai, Mumbai, Online Journal and Interlibrary Collaboration
- C-MET, Pune -Research Collaboration
- Industry Collaboration – 1. Megafine Pharma, Dindori, Nashik 2. Piramal Healthcare, Mumbai

#### ❖ **Countries visited for presentation of research work**

- 2019: University of Sussex, England
- 2018: InterContinental Nanjing, China
- 2014: Binghamton University, USA
- 2013: Lund University, Sweden
- 2013: ETH Zurich, Switzerland
- 2012: Ras-al-Kheimah, Dubai
- 2011: Massey University, Palmerston North, New Zealand
- 2010: Department of Chemistry, University of Mauritius, Mauritius
- 2008: University of Pittsburgh, Pennsylvania, USA
- 2006: University of Sopran, Hungary
- 2006: Department of Chemistry, Asia Pacific, Thailand
- 2006: National University Singapore, Singapore
- 2004 : Institute of Pharmaceutical Science, University of GRAZ, Austria
- Also visited the countries like Belgium, France and Italy.

#### ❖ **Fellowship/membership of academic and professional bodies/committees**

- Life Member, Indian Science Congress Association, Kolkatta
- Life Member, Indian Association of Nuclear Chemists and Allied Scientists, (IANCAS) BARC, Mumbai
- Life Member, Indian Association of Chemistry Teachers, Mumbai.
- Life Member, Indian Association of Analytical Chemistry
- Life Member, Indian Society of Analytical Scientists (ISAS)
- Associate Member, Research Journal of Chemistry and Environment
- Member, Principal Forum Maharashtra State

#### ❖ **Research Projects:**

- Synthesis and Characterization of Mix-Metal oxides: A Green Chemistry Approach Sponsored by board of college and university development, Savitribai Phule Pune University, Pune 2012.
- Synthesis of Nano-TiO<sub>2</sub> and its Gas Sensing performance using Thick Film Sponsored by University Grant Commission (UGC),Govt. of India, New Delhi, 2009.
- Ecological studies of underground water with Reference to water quality assessment from Niphad Taluka, Dist. Nashik Sponsored by board of college and university development, Savitribai Phule Pune University, Pune 2006.
- Ecological studies of river Darana with reference to water quality assessment from Nashik district, Maharashtra, Sponsored by University Grant Commission (UGC) WRO, Govt. of India, New Delhi, 2004.
- Pollutant analysis of Godavari River in and around Nashik region Sponsored by University Grant Commission (UGC) WRO, Govt. of India, New Delhi, 1997

#### ❖ International Book chapters: 15

1. "Nanostructured Nickel Oxide by Hydrothermal Route for Gas Sensing Applications" Smart Sensors, Measurement and Instrumentation Volume 7 Chapter 10 (2014)
2. "Preparation of Ni-doped ZnO Nanorods by Hydrothermal Route for Gas Sensor Applications" Smart Sensors, Measurement and Instrumentation Volume 7 Chapter 11 (2014)
3. "Studies of Microstructure Properties and Gas Sensing Performance of (Sn<sub>0.3</sub>Ti<sub>0.7</sub>)O<sub>2</sub> Thick Film Resistors" Smart Sensors, Measurement and Instrumentation Volume 7 Chapter 12 (2014)
4. "Formulation, Characterization and LPG-Sensing Properties of CuO-Doped ZnO Thick Film Resistor", Advancement in Sensing Technology, Smart Sensors, Measurement and Instrumentation, Springer Berlin Heidelberg, Volume 1, 2013, pp 283-298 (2013)
5. "Structural and gas sensing behavior of (Sn<sub>0.3</sub>Ti<sub>0.7</sub>)O<sub>2</sub> based gas sensor" Proceedings of the International Conference on Sensing Technology, ICST, art. no. 6461652, pp. 115-120. (2012)
6. "Sol-gel synthesis of TiO<sub>2</sub> nano powder and study of their gas sensing performance using thick film resistors" Proceedings of the International Conference on Sensing Technology, ICST, art. no. 6136973, pp. 239-244. (2011)
7. "LPG gas sensing properties of CuO loaded ZnO thick film resistors" Proceedings of the International Conference on Sensing Technology, ICST, art. no. 6136972, pp. 233-238. (2011)
8. "Gas sensing characteristics of pure and ZnO-modified Fe<sub>2</sub>O<sub>3</sub> thick films" Lecture Notes in Electrical Engineering, 83 LNEE, pp. 123-132. (2011)
9. "Cr<sub>2</sub>O<sub>3</sub>-doped BaTiO<sub>3</sub> as an ammonia gas sensor" Lecture Notes in Electrical Engineering, 83 LNEE, pp. 157-167. (2011)
10. "Synthesis and Applications of Nano Size Titanium Oxide and Cobalt Doped Titanium Oxide" Proceeding book of ICPAC-2010, Springer Book Series (2010)
11. "Studies on gas sensing performance of pure and nano- Ag doped ZnO thick film resistors" Lecture Notes in Electrical Engineering, 49 LNEE, pp. 293-307. (2009)
12. "Electrical and gas sensing performance of coppergermanate" Lecture Notes in Electrical Engineering, 49 LNEE, pp. 283-291. (2009)
13. "Thick film of CuGeO<sub>3</sub> as a H<sub>2</sub>S gas sensor" Proceedings of the 3<sup>rd</sup> International Conference on Sensing Technology, ICST 2008, pp. 90-93. (2008)
14. "Effect of Nano Ag on gas sensing performance of ZnO thick films" Proceedings of the 3<sup>rd</sup> International Conference on Sensing Technology, ICST 2008, pp. 547-552. (2008)
15. "Gas sensing performance of pure and modified SrTiO<sub>3</sub> thick film resistors" Proceedings of the 3<sup>rd</sup> International Conference on Sensing Technology, ICST 2008, pp. 422- 425. (2008)

## ❖ Ph. D. Students awarded Degrees (16)

### ▪ Chemistry: (8)

1. Suhas M. Bakre “Development of Chromatographic and Mass Spectrometric Method for Identification and Estimation of Adulteration in Vegetable Oil”
2. Sarika D. Shinde “Preparation of Nano ZnO and its gas sensing Application”.
3. Dnyaneshwar D. Kajale “Synthesis of Pure and Modified Strontium Titanate for Gas Sensor”
4. Dnyaneshwar N. Chavan “Gas Sensing Properties of Pure and Modified Indium Oxide”
5. Sharad S. Gaikwad “Mechanochemical Synthesis of transition metal based mixed metal oxides: Their application as a daylight photocatalyst
6. Shivaji R. Labhade “Investigation and Applications of UV-Visible Absorbing Systems for Spectrophotometric Determination of Absorbance Quenching Analytes”
7. Kailas R. Labhade “Synthesis of Pyrazolo(3,4-b)pyridines, pyrazolo(3,4-b)(1,8)naphthyridines and study of their photophysical properties”
8. Rajendra P. Navale “Hydrothermal preparation of pure & modified Barium Titanate for gas sensing application”

### ▪ Environmental Science: (8)

1. Suchita N. Patil “Microbial enhanced oil recovery by using biosurfactant producing microorganisms”
2. Aparana Pharande “Assessment of Ground Water in and around Nashik ”
3. Shailesh Kanade “Groundwater Quality Monitoring of Nashik and Niphad Taluka, Nashik”
4. Niranjana P. Patil “Studies on Bioremediation and Biodegradation of dye containing Textile Effluent”
5. Kalpana Bawa “Studies on Quality Assessments of Intake Water and Its Impact on Nashik thermal power Station”
6. Amanpreet Sidhu “Laccase magnetic Nanoparticle conjugates for bioremediation
7. Manisha S. Girase “Isolation, Identification of chitosan and chitooligosaccharides producing microorganisms and to study their potential in management of chitinous waste generated from marine sources in Thane district west coast of Maharashtra”
8. Swapnesh Rangnekar “Determination of transfer factors of toxic metals for economically important Indian plant varieties using radio tracers”

### ▪ Ph. D. Students working (5)

1. Miss. Pooja Sunil Donrge “Quantification of trace concentration of fluorine in environmental and food sample using Particle Induced Gamma-ray Emission method”
2. Nitin K. Jadhav “Synthesis and novel thiazole and rhodanine derivatives and their biological activity”

3. Bhushan Bapu Khairnar “Extracellular biosynthesis of molybdenum nanoparticles and its environmental applications”
4. Vikas D. Jadhav “ Development and validation of new analytical methods for selective biological active heterocyclic organic compounds”
5. Aakanksha C. Gurule “ Synthesis, Characterization of modified MgO and CuO : Their application as a catalyst and Gas sensor”

❖ **List of Research Publications: International (84) and National (12)**

Sr.No.	Title of the publication	Name of the international journal	Month and year of publication
1.	“Optimization of strontium-doping concentration in BaTiO <sub>3</sub> nanostructures for room temperature NH <sub>3</sub> and NO <sub>2</sub> gas sensing”	<i>Materials Today Chemistry</i> , Vol.No.16 100240-100246	(6)(2020)
2.	A Facile Chemical Synthesis of PbTe Nanostructures at Room Temperature	<i>Nanomaterials</i> , 10, 1915, pp.1-15	(10) (2020)
3.	“Solvent extraction, spectrophotometric determination of copper (II) from environmental samples using o-methylphenylthiourea as a novel reagent”,	<i>Iranian Chemical Communication</i> , 212-222, ISSN No. 2423-4958	(7)(2019)
4.	Effect of Surface Modification by CuO on Surface Morphology, Electrical Properties and Gas Response of ZnO Thick Films	<i>Sensor Letters</i> , Vol. 17, 12, pp. 968-976	(12) (2019)
5.	Adsorptive Removal of Cadmium (II) ion from Industrial Wastewater by Natural Adsorbent	<i>Journal of Materials and Environmental Sciences</i> ISSN : 2028-2508 2019, Volume 10, Issue 11, Page 1117-1122	(10) (2019)
6.	Ultrasonic treatment assisted demineralization of shrimp shells using lactic acid bacteria for biological recovery chitin	<i>International Journal of Research and Analytical Reviews</i> January 2019, Volume 6, Issue 1, 13-16	(6)(2019)
7.	La doped BaTiO <sub>3</sub> nanostructures for room temperature sensing of NO <sub>2</sub> /NH <sub>3</sub> : Focus on La concentration and sensing mechanism	<i>Vacuum</i> 166 (2019) 37–44	(6) (2019)
8.	“Simple and Green way to Synthesis 5-aryl-1,2,4-Triazolidine-3-ones in Aqueous Medium”	<i>Int. J. of Chem. And Phys. Sci.</i> , Vo. 7, , pp. 119-132. ISSN:2319-6602	(3) (2018)
9.	“ Study on gas sensing performance of surface modified lanthanum doped barium titanate,	<i>Int. J. of Chem. And Phys. Sci.</i> , Vo. 7, , pp. 259-267. ISSN:2319-6602	(3) (2018)
10.	“Synthesis and Characterization of CaGeO <sub>3</sub> Nanoparticles by Ecofriendly Method” ,	<i>Int. J. of Chem. And Phys. Sci.</i> , Vo. 7, , pp. 340-349. ISSN:2319-6602	(3) (2018)
11.	Biosynthesis and Characterization of Nickel	<i>Chemical Science Transactions</i>	(4)(2018)



	Nanoparticle Using Ocimum sanctum (Tulsi) Leaf Extract	2018, 7(4), 696-702	
12.	Application of protease producing bacterial culture for deproteination of shrimp shells as an alternative to chemical deproteination by NaOH	<i>International Journal of Creative Research Thoughts</i> Volume 6, Issue 2 April 2018   ISSN: 2320-2882	(6)(2018)
13.	Synthesis of Nano-TiO <sub>2</sub> by using Hydrothermal Method for Gas Sensing Application	<i>International Journal of Chemical and Physical Sciences</i> 590-594, IJPCS Vol. 7 ISSN:2319-6602	(7)(2018)
14.	Study of photocatalytic asset of Lead titanate synthesized by ecofriendly Mechanochemical method	<i>Journal of Emerging Technologies and Innovative Research</i> , 1350-1354 February 2018, Volume 5, Issue 2	(5)(2018)
15.	“BaTiO <sub>3</sub> nanostructures for H <sub>2</sub> S gas sensor: Influence of band-gap, size and shape on sensing mechanism”,	<i>Vacuum</i> , pp. 455-461. ISSN No. 0042-207X	(8)(2017)
16.	Solvent extraction, spectrophotometric determination of Selenium (IV) at microgram level using O-methylphenylthiourea as a sensitive reagent : Analysis of pharmaceutical, synthetic mixtures and real samples,	<i>World Journal of Pharmacy and Pharmaceutical Science, International</i> , 6, 1664-1685, ISSN No. 2278-4357,	(1)(2017)
17.	Synthesis and Characterization of Silver Nanoparticles using Azadirachta indica (Neem) leaf extract	<i>International Journal of Engineering Science Invention</i> Volume 6 Issue 4   April 2017    PP. 47-55	(4)(2017)
18.	Characterization of extracellular protease from vibrio Metschnikovii strain xmb 057	<i>Scholarly Research Journal for Interdisciplinary Studies</i> (Pg. 6892-6900)	(2)(2017)
19.	In vitro study on bio-control potential Harzianum mutants on fungal pathogen challenged moth bean (Vigna acconitifolia L.) Plant	<i>Scholarly Research Journal for Interdisciplinary Studies</i> ISSN: 2319-4766 145-150	(2)(2017)
20.	“ Sensitive and rapid hydrogen sulfide sensor based on Ni-surface modified BaTiO <sub>3</sub> Thick film”,	<i>Journal of Advanced Physics, International</i> , Vol.No. 5 Page No.110-117, ISSN No.2168-1996, Indexed and Referred	(2)(2016)
21.	“TiO <sub>2</sub> Nanorod based highly sensitive LPG gas sensor”,	<i>Journal of Advanced Physics, International</i> , Vol.No. 5, Page.no. 1-7, ISSN No 2168-1996,	(1)(2016)
22.	“2,5 disubstitute 1,3,4 oxadizole derivative of chromino[4,3-b]pyridine: synthesis and study of antimicrobial potency,	<i>Heterocyclic communication, International</i> , Vol.No. 22, Page.no. 123-130, ISSN No.2191-0197,	(3)(2016)

23.	“An efficient synthesis of pyrazolo[1,5-a]pyrimidines and evaluation of their antimicrobial activity”,	<i>Journal of Chemical Science International</i> , Vol No. 4, Page No. 377-388,ISSN No.0974-3626	(2)(2016)
24.	“Role of CuO-ZnO heterojunctions in gas sensing response of CuO-ZnO thick films”,	<i>Journal of physical science and application, International</i> , Vol. No. 6,Page No. 51-60,ISSN No. 2159-5348,	(2) (2016)
25.	“Decolourisation of dyes and its mixture by providencia sp.VNB7 isolated from Textile effluent treatment plant”,	<i>Journal of Industrial pollution Control, International</i> ,Vol.No.32, Page No. 623-628, ISSN No 0970-2083	(2)(2016)
26.	“Simultaneous decolorization of methyl red and generation of electricity in microbial fuel cell by bacillus circulans NPP1”,	<i>Journal of microbial and Biochemical Technology International</i> , Vol. No. 8 Page No. 428-432, ISSN No. 1948-5948	(5) (2016)
27.	“H <sub>2</sub> S Gas Sensing Properties of Sr Modified BaTiO <sub>3</sub> Thick Films by Dipping and Doping Process,	<i>Sensor Letters</i> , Volume 14, Number, pp. 1203-1209	(12) (2016)
28.	Synthesis and in vitro antimicrobial evaluation of novel trifluoromethyl substituted pyrazolo [3,4-b]pyridine 6-one derivatives	<i>Indo American Journal of Pharmaceutical Research</i> , Vol 6, 2016, 6442, ISSN NO: 2231-6876	(09)( 2016)
29.	Titrimetric assay of ranitidine hydrochloride using mercury(ii) nitrate reagent and mercury(ii) thiocyanate-iron(iii) nitrate indicator system	<i>Indo American Journal of Pharmaceutical Research</i> , 2016, 7246, ISSN NO: 2231-6876	(6) (2016)
30.	Biodegradation of Model Azo Dye Methyl Red and other Textile Dyes by Isolate <i>Bacillus circulans</i> NPP1.	<i>J Pure Appl Microbio.</i> 10 2793-2800.ISSN: 0973-7510	(4) (2016)
31.	“Hydrothermal Synthesis of TiO <sub>2</sub> Nanorods using TiCl <sub>3</sub> and Its Gas Sensing Properties”,	<i>International Journal of Enhanced Research in Science Technology &amp; Engineering</i> Vol.3 pp (123-130) ISSN: 2319-7463	(11)(2014)
32.	“Simple and Improved Visible Spectrophotometric Method for Determination of Paracetamol Using Sodium Nitroprusside Chromogenic Reagent”	<i>Chemical Science Transactions</i> Vol. No. 4: 2(2015), pp. 377-388 ISSN No. 2278-3458	(2)( 2015)
33.	“Development of Fixed Time Kinetic Spectrophotometric Method for Selective Determination of Metformin in Pharmaceutical Formulations”	<i>Chemical Science Transactions</i> Vol. No. 4: 1(2015), pp. 37-48. ISSN No. 2278-3458	(1) (2015)

34.	“Contamination of Pesticides Residues on Grape Growing Soils in Nashik District”	<i>International Journal of Environment</i> Vol. No. 4., pp. 37-46. ISSN No. 2321-0109	(1) (2014)
35.	“Synthesis of substituted N-aryl pyrroloquinolines and study of their antimicrobial activities”	<i>Journal of Chemical and Pharmaceutical Research</i> Vol. No. 6: pp. 393-399. ISSN No. 0975 – 7384	(8) (2014)
36.	“Microbial growth, biomass, community structure and nutrient limitation in high pH and salinity soils from Pravaranagar (India)”	<i>European Journal of Soil Biology</i> Vol. No. 65: pp. 87-95. ISSN No. 1164-5563.	(2)(2014)
37.	“Reduction of Carcinogenic Heavy Metals in Industrial Effluent by Microbial Strain”	<i>International Journal of Environment, Ecology</i> Vol. No. 4: pp. 29-36. ISSN No. 2250-0065	(4) (2014)
38.	“Isolation of Colletotrichum gloeosporioides gr., a novel endophytic laccase producing fungus from the leaves of a medicinal plant, Piper betle”	<i>International Journal of Scientific &amp; Engineering Research</i> Vol. No. 5: pp. 1087-1096. ISSN No. 2229-5518.	(2) (2014)
39.	“Hydrothermal synthesis of TiO <sub>2</sub> using TiCl <sub>3</sub> with Nutrients and gas sensing performance of TiO <sub>2</sub> thick films	<i>International Journal of Enhanced Research in Science Technology &amp; Engineering</i> Vol.3 Issue 12, pp (86-92)ISSN: 2319-7463	(12)(2014)
40.	“A Novel Method for the Selective Identification of Metformin in Bulk and Pharmaceutical Formulations using Sodium Nitroprusside as a Chromogenic Reagent by Spectrophotometry”	<i>Chemical Science Transactions</i> Vol. No. 3: (4) (2014), pp. 1254-1263. ISSN No. 2278-3318	(4) (2014)
41.	“Diffusion Mechanisms of Biosorption of Cr(VI) onto Powdered Cotton Stalk”	<i>Journal of Dispersion Science and Technology</i> Vol. No. 34.: pp. 1347-1355. ISSN No. 0193-2691	(1)(2013)
42.	“Conducting Poly(N-propylaniline) Nanoparticles for Hydrogen Sulfide Gas Detection”	<i>Macromol, Symp</i> Vol. No. 327: pp. 39-44. ISSN No. 1521-3900	(4) (2013)
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