

## **Dr. Umesh B. Kakde**

**Date of Birth:** MARCH 16<sup>TH</sup>, 1970

**Qualification:** M.Sc. (Botany), B.Ed., Ph.D.

**Nationality:** INDIAN

**Languages:** ENGLISH, HINDI,  
MARATHI

**(Speak, read & write)**

**Email :** drumeshkakde@gmail.com



### **Profile-**

Dr. Umesh B. Kakde is Post graduate in Botany and did his Ph.D. degree from Nagpur University. Presently he is working as an Asst. Professor in Botany in the Department of Botany, The Institute of Science, Mumbai-32. He has more than 20 years of teaching experience and more than 25 years of research experience at National level research Institutes. He has completed many major and minor funded research projects and published many research papers in national and international journals. He has two patents on his credit.

His main area of research is Environmental biotechnology, fungal biotechnology, Environmental Impact Assessment (EIA), bioremediation, biodegradation and utility of agricultural wastes as bio-fertilizers, mass cultivation of SCP, bio-fertilizers and bio-control microbes, Biological treatment of wastewater and solid waste and its management, greenbelt development, plant-pathogen interaction, Bio-aerosol studies, Air and Water pollution control, carbon sequestration and Nanobiotechnology.

He is recognized research supervisor/guide at University of Mumbai and guiding many research students. Presently four research students are working under him on topics like Nanobiotechnology, fungal biotechnology, Carbon sequestration etc. He was a Member, Board of Studies, University of Mumbai during 2010-2015. Presently he is a Member-Board of Studies (BOS), Somayya College, Vidyavihar, Mumbai (an autonomous College) from 2017 till date He is also an Organizing secretary of PLANTA the festival of Plants in The department every year and the Chairman, Philosophical Association to organise different functions and events during annual fest, gathering, Vidnyan Tarang etc. He is a reviewer for Bioremediation Journal (International) Taylor & Francis Group. Taylor & Francis, Inc., 325 Chestnut Street, Suite 800, Philadelphia, PA 19106 and reviewer for the Journal of Applied Research on Medicinal and Aromatic Plants, Elsevier Science, Publication.

He is a life member of many scientific societies and reviewer for many research journal of International repute. He has honored with many awards like eminent researcher in the field of science, lifetime achievement award conferred by various national and international organizations. Recently he has received an award as Eminent Researcher in Life Sciences at 3rd International Conference on Science & Technology for Society in Singapore, Theme Conservation of Non-Conventional Energy Sources through Advanced Technological and its Social Approaches for Sustainable Development at MIDS Campus, Singapore (11-13 may 2017) and awarded a Fellowship by Global Society for Basics and Applied Science (GSBAS), Mumbai, India. He has delivered many popular lectures and presented research papers at various national and international conferences.

### Academic qualification :

- i) Graduate degree: B.Sc. (BIOLOGY) from Nagpur University, Nagpur (1991), 60.0% First Division, (Subjects- Chemistry, Botany, Zoology with specialization Forestry & Micro technique)
- ii) Post Graduate: M. Sc. (BOTANY) from Nagpur University, Nagpur, (1993), 70.3% First Division, (Subject- Botany with specialization Palynology)
- iii) Ph.D. degree from Nagpur University, Nagpur, (1997).
- iv) Title of Ph.D. Thesis: "Aero-mycological Studies of Vegetable and Fruit Market Environment".

### Additional Qualifications:

- Degree in B.Ed. from Nagpur University, Nagpur (1995)
- Cert. Computer Operation, Institute of Science, Nagpur (1995)
- MH-CIT, Maharashtra Technical Board, Pune (2002)

### Research Area/Research Interest

Environmental biotechnology, bioremediation, biodegradation and utility of agricultural wastes as bio-fertilizers, mass cultivation of SCP, bio-fertilizers and bio-control microbes, Air and water pollution control, carbon sequestration, Biological treatment of wastewater and solid waste management, greenbelt development, plant-pathogen interaction, Bioaerosol studies, Phytochemistry and Nanobiotechnology

### Publications

1. U.B. Kakde and A.A. Saoji, (1996). Study of Air Borne Fungal Spores in Vegetable/Fruit Market Environment. *International Journal Mendel*. Vol. 13 (1&2) 17-18
2. U.B. Kakde and A.A. Saoji, (1997). Air Borne Fungal Spores in Market Environment of Nagpur City. *Nagpur University Journal of Science*, Vol. 8, 61-65
3. U.B. Kakde and A.A. Saoji, (1998). Study of Mycoflora Associated with Four Spices, *The Botanique*. Vol. 11: 46-51
4. U.B. Kakde, (1999). Survey of Mycoflora Associated with stored spices. *International J. Mendel*. Vol.16 (1-2), 11-12
5. U.B. Kakde, H.U. Kakde and A.A. Saoji, (2001). Seasonal Variation of fungal propagules in a fruit market environment, Nagpur (India), *International. J. Aerobiol*. Vol.17 (2), June 2001, 177-182.
6. U. B. Kakde & H.U. Kakde (2003). The outdoor air quality in market environment with mold problem. *The Botanique*, Vol-12 (1), 88-94
7. U. B. Kakde, (2009), Exposure to Bioaerosols: Survey of bioaerosol in different indoor and outdoor working environments. *The Bionano Frontier*, Science Day Special Issue. February 28<sup>th</sup> 2009: 58-60.
8. U. B. Kakde & Jambadhe, V. (2009). Studies on Fungi Responsible For Biodegradation and Humification of Organic Matter. *The Bionano Frontier*, Vol. 1 & Issue-2 : 77-81
9. Umesh B. Kakde and Hemalata Kakde (2012). Incidence of Post-Harvest Disease and Airborne Fungal Spores in a Vegetable Market. *An International Journal Acta Bot. Croat*. 71 (1), 1-11, 2012 ISSN 0365-0588 & eISSN 1847-8476
10. Umesh B. Kakde and Pawaar Jayaa (2012). Study Of Arbuscular Mycorrhiza Associated With Some Important Medicinal Plants In Suburban Area Of Mumbai. *Online International Interdisciplinary Research Journal*, {Bi-Monthly}, Volume-II, Issue-II, Mar-Apr2012 ISSN 2249- 9598: 116-127.
11. U.B. Kakde (2012). Fungal Bioaerosols: Global diversity, distribution and its impact on human beings and agricultural crops. *The Bionano Frontier*, Special Issue: VOL. 5 (2 - II) NOV 2012, ISSN 0974-0678, 323-329.
12. U.B. Kakde and Pawaar Jayaa (2013). SCREENING OF SOME IMPORTANT MEDICINAL PLANTS AND RHIZOSPHERE FOR ARBUSCULAR MYCORRHIZA OF MUMBAI REGION, *Life Sciences Leaflets (Peer-reviewed)* ISSN 2277-4297(Print) 0976-1098(Online), Vol.8 (Aug-8), 8-18.

13. Umesh B. Kakde & Aarti S. Nagarsekar (2014). Studies on Heavy Metal Contamination in Mithi River, Mumbai. Online International Interdisciplinary Research Journal, {Bi-Monthly}, ISSN 2249-9598, Vol-IV, Jan 2014 Special Issue.
14. Umesh B. Kakde & Aarti S. Nagarsekar (2014). A Study of Physico-Chemical Parameters of Mithi River Water in Mumbai Metropolis. International Research Journal of Chemistry (IRJC) ISSN 2321 – 2845 (Online), 2321 – 3299 (Print) Vol. 5: 24 to 42.
15. U.B. Kakde (2014). A study of biodiversity of fungal bioaerosols in Mumbai Metropolis. Research Paper published in International Journal of Researches in Biosciences, Agriculture & Technology. May 2014 Issue-2, Volume-II ISSN No. (Online) 2347-517X: 196-208
16. U.B. Kakde & T.M.A. Khan (2014). Biodiversity in wild vegetables of Konkan region – Maharashtra. Paper published in International Journal of Researches in Biosciences, Agriculture & Technology. May 2014 Issue-2, Volume-II ISSN No. (Online) 2347-517X: 229-243
17. U.B. Kakde & Aprna S. Gund (2014). Analysis of physico-chemical properties of Powai lake during festive season in Mumbai metropolis. Paper published in International Journal of Researches in Biosciences, Agriculture & Technology. May 2014 Issue-2, Volume-II ISSN No. (Online) 2347-517X: 702-716.
18. U.B. Kakde & Aarti S. Nagarsekar (2014). Bacteriological Study of Mithi River water in Mumbai Metropolis. Paper published in International Journal of Researches in Biosciences, Agriculture & Technology. May 2014 Issue-2, Volume-II ISSN No. (Online) 2347-517X: 362-374.
19. U.B. Kakde, & Shalini A Tandon, Hrishikesh Badrike, Rakesh Kumar (2014). ENHANCEMENT IN PHYTOREMEDIATION OF MUNICIPAL WASTEWATER BY GENETICALLY MODIFYING WETLAND AND NON- WETLAND PLANT SPECIES (NON-EDIBLE). Global Journal of Bioscience and Biotechnology, VOL.3 (4) 2014: 359-364 (ISN 278 – 9103) IF: 1.211.
20. U.B. Kakde (2015). Study of fungal bioaerosols and microbiological deterioration & degradation of library materials. Paper published in international journal of researches in biosciences, agriculture & technology. Issn no. (online) 2347-517x: issue (3), vol. li, may 2015: 393-398
21. U.B. Kakde (2015). Effect of Thermal Power Station Effluents on Wetland Ecosystem. Paper published in International Journal of Researches in Biosciences, Agriculture & Technology. ISSN No. (Online) 2347-517X: Nov. 2014 Issue-4, Volume-II: 252-259.
22. U.B. Kakde & Pawar, J.S. (2016). A Study of Fungal Bioaerosols in Library Environment. Online International Interdisciplinary Research Journal, {Bi-Monthly}, ISSN 2249-9598, Volume-VI, 41-47 (Jan 2016 Special Issue).
23. U.B. Kakde & Patil Neeraj (2017). Comparative study of airborne microbial burden in the vicinity of two landfill sites in Mumbai, India. Int J Pharma Bio Sci 2017 July; 8(3): (B) 55-63
24. U.B. Kakde & Patil Neeraj (2017). Analysis of fungal bioaerosol contamination in residential Area around a municipal landfill. Int J Pharma Bio Sci 2017 July; 8(3): (B) 145-154
25. U.B. Kakde & Tak, A. (2017). Assessment of air pollution tolerance index of plants: a comparative study. International Journal of Pharmacy and Pharmaceutical Sciences ISSN- 0975-1491 Vol 9, Issue 7, 2017: 83-89.
26. Kakde, Umesh B. & Patil, Neeraj S. (2017). Assessment of fungal bioaerosol emission in the vicinity of a landfill site. *Int. J. Environment and Waste Management*, (ISSN No. online: 1478-9868 ISSN print: 1478-9876) Vol. 20, No. 1:75-91.
27. Kakde, Umesh B. (2017). Mycotoxins & its Impact on Human Populations. *MOJ Bioequiv Availab* 3(5): 48
28. U.B. Kakde & Tak, A. (2017). Comparative Study of Air Pollution Tolerance & Performance Index of Some Plants Growing in an Industrial Area. Online International Interdisciplinary Research Journal, {Bi-Monthly}, ISSN 2249-9598, Volume-07, Sept 2017 Special Issue (01): 22-31
- 29.

## Patents:

### Patents published: 02 (Published in Gazettes)

- i) Title of the invention: ORAL CARE COMPOSITION. Application No.1102/MUM/2012 A. Date of filing of Application: 04/04/2012 (43) Publication Date: 25/05/2012.
- ii) Title of the invention: ANTI-DANDRUFF HAIR OIL COMPOSITION. Application No.765/MUM/2014 Date of filing of Application: 06/03/2014. Publication Date: 28/03/2014

### Research articles in Journals/news papers/Shabda Kosh:

#### Articles Published

1. U. B. Kakde, Dongare & Jamdadhe (2009). IMPORTANCE OF BIONANOTECHNOLOGY. From Editorial Desk. Article published in *The Bionano Frontier*, Vol.2 & Issue 1 (Jan- June 2009)
2. U. B. Kakde, Dongare & Jamdadhe (2009). SCIENTIFIC METHODS Article published in *The Bionano Frontier*, Editorial Desk (Science Day Special Issue Feb 28<sup>th</sup> 2009)
3. U. B. Kakde, Dongare & Jamdadhe (2009). RESTRICTION ENZYMES: A MOLECULAR SISSIONS Article published in *The Bionano Frontier*, Vol.2 & Issue 2 (Editorial Desk).
4. U. B. Kakde (2017). Marthi Shabdakosh: Environmental biopollution (accepted)
5. U. B. Kakde (2017). Marthi Shabdakosh: Pollen allergy (accepted)
6. U. B. Kakde (2017). Marthi Shabdakosh: Fungal toxins (accepted)

#### Invited/Conference Talks

1. Invited lecture at 8 Maharashtra Girls Bn NCC cadet camp at JNPT, New Mumbai on Ecology, Environment & Pollution Control on 13 July 2008
2. Invited lecture at State level NSS camp at Gokhale Education Society's Commerce, Arts & Science College, Shrivardhan Dist. Raigarh on Global Warming (17/01/2009).
3. Invited lecture on Nano technologies in the National Conference on Advancement in Nano-Sciences for Different Technologies 10-11 Feb 2010. Shrikrishna Mahavidyalaya, Gunjoti, dist. Osmanabad.
4. Chief Guest lecture on : Climate Change and its effect on environment at Bhavans Botanical society function at Bhavans College, Andheri Mumbai. 20/12/2011
5. Invited talk on Biodiversity & Its Conservation NSS camp at Gokhale Education Society's Commerce, Arts & Science College, Shrivardhan Dist. Raigarh (21/12/2011).
6. Invited Talk on Carrier opportunities in Botany. Lecture delivered in 'FLORISTICS 2012' Elphinstone College, Fort, Mumbai (07/09/2012).
7. Invited talk on Carrier opportunities for graduate and post graduates in Botany. Lecture delivered in ICL Vashi, New Mumbai (11<sup>th</sup> December 2012).
8. Invited talk Conservation of Biodiversity. Second National Conference at Elphinstone College Fort, Mumbai (9<sup>th</sup> Feb 2013)
9. Invited Talk on Recent Trends in Botany. Lecture delivered in Elphinstone College, Fort, Mumbai (24 August 2013).
10. Invited talk on Conservation of our Ecosystem at Gandabhir School, Jogeshwari (July 2015).
11. Invited Talk on Advances in Botany. Lecture delivered in Elphinstone College, Fort, Mumbai (15Dec. 2017).
12. Invited talk on Fungal Contamination of Food: Effects & Control at National conference on Prospective and Problems of biological products in crops, animals and human life. KTHM College, Nashik (2<sup>nd</sup> Feb 2018).

### **Paper Presentation in National/International Conferences/Symposia**

1. U.B. Kakde and A.A. Saoji, (1996). Airborne Concentration of Fungal Spores in Fruit Market Environ of Nagpur city (M.S.). Presented in 8<sup>th</sup> National Conference on Aerobiology, Pune (March 1996).
2. U.B. Kakde and A.A. Saoji, (1996). Study of Air Borne Fungal Spores in Vegetable/Fruit Market Environment. Presented in Eighth National Conference on Aerobiology, Pune, (March 1996).
3. U.B. Kakde and A.A. Saoji, (1997). Relationship between Airborne Fungal Spore Concentration and Meteorological Factors in the Fruit Market Environment. 9<sup>th</sup> National Conference on Aerobiology, Hyderabad, (Nov.1997).
4. U.B. Kakde and A.A. Saoji, (1997). Influence of Airborne Fungi on Market Diseases of Some vegetables and Fruits. 9<sup>th</sup> National Conference on Aerobiology, Hyderabad, (Nov.1997).
5. U.B. Kakde, P.R. Chaudhari, L.N. Sangolkar, S.B. Lakhe, (1997). Impact of Solid Waste Dumping Site on Microbial Quality of Air in the Surrounding Area. 9<sup>th</sup> National Conference on Aerobiology, Hyderabad, (Nov.1997).
6. U.B. Kakde and H.U. Kakde (2003). Effect of everyday activities on the concentration of airborne fungal spores in the air of indoor environment. National conference on Recent Advances in Botany January 28<sup>th</sup>-29<sup>th</sup>, 2003 Held at J.M. Patel College, Bhandara. Oral presentation
7. U.B. Kakde, Kakde H.U., and Saoji A.A. (2004). Effect of everyday activity on the concentration of fungal spores in indoor environment, presented in National seminar on environmental Management and its impact on National development. Birla College, Kalyan (28&29 Feb 2004) Poster presentation
8. U.B. Kakde (2005). Study of air quality: Exposure to aeroallergens. 13<sup>th</sup> National conference on Aerobiology, Dept. of Botany, Institute of Science, Nagpur, (Dec-Jan 2005) Oral presentation
9. Kakde, U.B. & Hemalata Kakde H.U. (2005). Study of microbial diversity: Effect of everyday activities on microbial population. 13<sup>th</sup> National conference on Aerobiology, Dept. of Botany, Institute of Science, Nagpur, (Dec-Jan 2005). Poster presentation
10. Umesh B. Kakde, Hemalata Kakde & Shashikant Sitre (2007). Artificial Wetland Ecosystem for the Reclamation and Reuse of Thermal Power Plant Effluents. Paper present in the National Conference on Environmental Pollution & Toxicology. Dept. of Zoology, Thakur College, Mumbai. (2007).(Poster Presentation)
11. U.B. Kakde and Pawar J.S. (2011). Study of bioaerosols responsible for the deterioration of library materials. Paper presented in the National seminar on Vision 2025- Technological Developments in Biological Sciences organized by the Department of Biological Sciences, Patkar –Varde College, Goregaon (W), Mumbai From January 17-19, 2011 (Poster Presentation)
12. U.B. Kakde, Prajakta Bhoite, Archana Rangari (2011). Biodegradation of vegetable/fruit waste using fungus *Aspergillus niger* Paper presented in the National seminar on Vision 2025- Technological Developments in Biological Sciences organized by the Department of Biological Sciences, Patkar –Varde College, Goregaon (W), Mumbai From January 17-19, 2011. (Oral Presentation)
13. U.B. Kakde, H.U. Kakde (2011). Study of fungal bioaerosol in intramural environment. Paper presented in World Congress for Man & Nature, Global climate change & Biodiversity conservation, organized by Dept. of Zoology & Environmental Science, Gurukul Kangri Vishva Vidyalyaya, Haridwar (U.K.) and MANU- International Council for Man and Nature and applied & Natural Science Foundation 11<sup>th</sup> to 13<sup>th</sup> November 2011 (oral presentation)
14. U. B. Kakde & Sitre Shashikant (2011). Artificial Wetland Ecosystem for the Reclamation and Reuse of Thermal Power Plant Wastewater. Paper presented in World Congress for Man & Nature, Global climate change & Biodiversity conservation, organized by Dept. of Zoology & Environmental

Science, Gurukul Kangri Vishva Vidyalaya, Haridwar (U.K.) and MANU- International Council for Man and Nature and applied & Natural Science Foundation 11<sup>th</sup> to 13<sup>th</sup> November 2011 (Poster presentation)

15. U.B. Kakde & Payal Rane (2011). Physico-chemical studies of wetland ecosystem. Paper presented at Research meet in Biotechnology, Environmental Science & Phytochemicals Jaihind College, Mumabai
16. U.B. Kakde, Amit Tiwari, Farhat Sayyed, Ruksar Khan, Saeeda Shaikh, (2011). Study of Biodiversity of Mushrooms in Ismail Yusuf College, Mumbai. Paper present at Research meet in Biotechnology, Environmental Science & Phytochemicals Jaihind College, Mumabai
17. U.B. Kakde and Pawaar J.S. (2011). Study of cleaning activities on the variation of fungal spore concentration in library environment. Paper presented in National conference Status of biodiversity in India 2010-11 (NSSBII 2010-11) organized by Dept of Botany and Indian science Congress Asso. Kolkata, held at Badnera Amravati
18. U.B. Kakde and Pawaar J.S (2012). Study of arbuscular mycorrhiza associated with some important medicinal plants in suburban area of Mumbai. Mumbai Paper presented at WCMANU-2012 (3-5 Nov 2012)
19. U.B. Kakde and Supriya Janbandhu (2012). A preliminary survey of fungal bioaerosol of APMC market, Vashi, Navi Mumbai Paper presented at WCMANU-2012 (3-5 Nov 2012)
20. U.B. Kakde and Prajakta Bhoite (2012). Biodegradation of Floral waste using fungus *Aspergillus niger*, *Trichoderma harzianum*. Mumbai Paper presented at WCMANU-2012 (3-5 Nov 2012)
21. U.B. Kakde (2012). Fungal Bioaerosols: Global diversity, distribution and its impact on human beings and agricultural crops. Mumbai Paper presented at WCMANU-2012 (3-5 Nov 2012).
22. U.B. Kakde & Supriya Janbandhu (2012). STUDY OF FUNGAL BIOAEROSOL IN VEGETABLE & FRUIT MARKET. Paper presented in 17th National conference at Pune organized by MEER College of Pharmacy and Indian aerobiological Society of India (13 to 15 December 2012)
23. U. B. Kakde and Pawaar J.S. (2012). STUDY OF FUNGAL BIOAEROSOLS RESPONSIBLE FOR THE DETERIORATION OF LIBRARY MATERIALS. Paper presented in 17th National conference at Pune organized by MEER College of Pharmacy and Indian aerobiological Society of India (13 to 15 December 2012)
24. U.B. Kakde, (2012). Global biodiversity of fungal bioaerosol and its impact on human beings and agricultural crops. Paper presented in 17th National conference at Pune organized by MEER College of Pharmacy and Indian aerobiological Society of India (13 to 15 December 2012).
25. U.B. Kakde, (2013). Aerobiological Studies of Vegetable and Fruit Market of APMC Market, Navi Mumbai. UGC sponcered two day National Seminar on Fungi & Human Welfare. Organised by Ruia College, Matunga, Mumbai (8&9 Feb 2013).
26. U.B. Kakde, (2013). Sustainable management of deforestation in Maharashtra UGC sponsored National Workshop on Application of Remote Sensing Technology & Geographical Information System in Disaster Management. Organized by Elphistone College, Fort (20-21 Sept 2013).
27. U.B. Kakde, (2013). 'Understanding & using the Scientific methods'. UGC sponsored National seminar on qualitative and quantitative Research Method and data collection skill. Organized by Elphinstone College, Fort (20-21 Sept 2013).
28. U.B. Kakde, (2013). Study of fungal bioaerosol of Kalamna fruit and vegetable market, Nagpur. UGC SPONCERED National conference on concepts and new trends in aerobiology & allergy (CANTTA) 29-30 Nov 2013 organized by Botany & Zoology department , Somani Bhavans College Mumbai

29. U.B. Kakde, (2013). 'Study of airborne mould spores of allergenic importance in Mumbai metropolis' UGC SPONCERED National conference on concepts and new trends in aerobiology & allergy (CANTTA) 29-30 Nov 2013 organized by Botany & Zoology department, Somani Bhavans College Mumbai.
30. U.B. Kakde (2013). Study of Indoor allergenic fungal spores in Library environment. UGC SPONCERED National conference on concepts and new trends in aerobiology & allergy (CANTTA) 29-30 Nov 2013 organised by Botany & Zoology department, Somani Bhavans College Mumbai.
31. U.B. Kakde (2014). Post harvest fungal diseases of some fruits from APMC Market, Vashi, Navi Mumbai. UGC SPONCERED two National conference on FUNGI IN AGRICULTURE 28-29 January 2014
32. U.B. Kakde (2014) Biocontrol of Nematode. UGC sponsored two day National conference on FUNGI IN AGRICULTURE organized by Ratnam College, Bhandup in collaboration with mycological society of India (MSI), Mumbai Unit 28-29 January 2014
33. U.B. Kakde (2014). The cultivation of edible fungi as a sustainable alternative in food and agriculture waste management in India. 2 day UGC Sponsored National Conference on 'Frontiers in the Field of Science, Technology and Sustainability' on 14 and 15 February 2014. organised by Elphinstone College, Fort, Mumbai.
34. U.B. Kakde (2014). A study of biodiversity of fungal bioaerosols in Mumbai metropolis. Research Paper presented in International congress on Science and Technology for Society which was held at The Hotel Bangkok Palace, Bangkok (Thiland) on 23, 24 and 25th May 2014.
35. U.B. Kakde & T.M.A. Khan (2014). Biodiversity in wild vegetables of Konkan region – Maharashtra. Research Paper presented in International Congress on Science and Technology for Society which was held at The Hotel Bangkok Palace, Bangkok (Thiland) on 23, 24 and 25th May 2014.
36. U.B. Kakde & Aprna S. Gund (2014). Analysis of physico-chemical properties of Powai lake during festive season in Mumbai metropolis. Research Paper presented in International Congress on Science and Technology for Society which was held at The Hotel Bangkok Palace, Bangkok (Thiland) on 23, 24 and 25th May 2014.
37. U.B. Kakde & Aarti S. Nagarsekar (2014). Bacteriological Study of Mithi River water in Mumbai Metropolis. Research Paper presented in International Congress on Science and Technology for Society which was held at The Hotel Bangkok Palace, Bangkok (Thiland) on 23, 24 and 25th May 2014.
38. U.B. Kakde & Aarti S. Nagarsekar (2015). Microbial Water Pollution of Mithi River in Mumbai Metropolis. UGC Sponsored National workshop on Green Chemistry (21 Jan 2015). Organized by Government of Maharashtra's Elphinstone College, Fort, Mumbai.
39. U. B. Kakde and Pawaar J.S. (2015) Assessment of Plants Suitable for Controlling Air Pollution in Mumbai Metropolis. UGC Sponsored National workshop on Green Chemistry (21 Jan 2015). Organized by Government of Maharashtra's Elphinstone College, Fort, Mumbai.
40. U.B. Kakde (2015). Study of Fungal Bioaerosols And Microbiological Deterioration & Degradation Of Library Materials. International Conference on Science and Technology for Society (ICSTS-2015) with theme conservation of Environment by advance technologies through social approaches for sustainable development. Organized by VMS India at Hotel Galadari, Colombo, Shrilanka (May 19-21 2015)
41. U.B. Kakde (2015). Effect of Thermal Power Station Effluents on Wetland Ecosystem. International Conference on Science, Engineering & Technology (ICST-2015) with theme Recent trends in Science, Management, Engineering and Technology. Organised by Jagadambha College of Engineering and Technology in collaboration with Birla institute of Technology offshore Campus, Ras-al-Khaimah, Dubai (UAE). November 21 to 23, 2015.

42. U.B. Kakde (2017). "Green synthesis of nano-particles, its characterization and anti-pathogenic activity" Presented in ICSTS-2017, 3rd International Conference on Science & Technology for Society in Singapore, Theme Conservation of Non-Conventional Energy Sources through Advanced Technological and its Social Approaches for Sustainable Development at MIDS Campus, Singapore (11-13 may 2017).
43. U.B. Kakde (2017). Studies on Air Pollution Tolerance & Performance Index of Some Plants. Paper presented Global science congress on, Emerging Trends in Basic and Applied Sciences. Organized by GSBAS, Mumbai In Association with Soil and Water Conservation Society, (SOWCOS). Held at Kathmandu Nepal, Venue: Kathmandu, Nepal (17-20 May 2017).
44. U.B. Kakde (2017). Green synthesis and characterization of silver nano-particles using fungal extracts in 3rd International Conference on Innovative research on science and technology, (ICIRST), at Gopalkrishna Gokhale College, Kolhapur (7-8 November 2017).
45. U.B. Kakde (2018). Bioaerosol monitoring around landfill sites in Mumbai. XX National conference of Aerobiology-2018. Airborne pollen and spores assessment impact and scope. Organized by Dept of Botany, Amravati University and Aerobiological society of India Amraoti (29-31 Jan 2018)
46. U.B. Kakde (2018). Determination of antifungal activity of silver nano-particles. Advances in Biological Sciences, organized by Dept of Botany Rizvi college of Arts, Science, and Commerce, Mumbai (03/02/2018)
47. U.B. Kakde (2018). Green synthesis of copper nanoparticles from *Aspergillus niger* and its antifungal activity presented at National Seminar on Recent Trends in Science and Technology for Sustainable Development 2018 (RTSTSD-2018) sponsored by Rajiv Gandhi Science and Technology Commission, Mumbai and NCSTC-DST, New Delhi organized by Institute of Science, Mumbai (22-23 March 2018)

#### **Projects (Completed & Ongoing)**

1. **Projects Completed As Principal Investigator– Four (Minor)**
  - i) Indoor air quality: exposure to aeroallergens and pollens (sponsored by Mumbai University, Mumbai for 2003-2004)
  - ii) 'Studies on fungi responsible for biodegradation and humification of organic matter'- Sponsored by Mumbai University, Mumbai for the year 2005-2006
  - iii) Study of post harvest fungal diseases of some important cereal grains and their effect on seed germination (Sponsored by Mumbai University, Mumbai for the year 2007-2008)
  - iv) Studies on air pollution tolerant plants in mumbai metropolis region (Sponsored by Mumbai University, Mumbai for the year 2009-10)
  - v) Green synthesis of nanoparticles (NPs) using biological extract and its applications against pathogens (Sponsored by Mumbai University, Mumbai for the year 2016-17) Rs 35000/-
2. **Projects Completed As Principal Investigator–One (Major):** Diversity and seasonal dynamics of fungal bioaerosols in rural and urban environments (Funded by University Grant Commission (May 2012 –April 2015). UGC No. F. 41-1118/2012 (SR), dated: 30 JULY 2012 (Rs. 3,36,500/-).

#### **Research Guidance (Ph.D. & Msc by Research)**

- Students Awarded Ph.D. degree: 01
- Students Registered for Ph.D.: 04
- Students submitted Ph.D. thesis: 01
- Activities:
  - Actively engaged in research and teaching in the field of Botany, Environmental botany and Environmental Biotechnology



- Examiner for PG degree on the university panel RTM Nagpur University and Gadge Baba Amravati University, SRT Marathwada University Nanded
- Ex Member-Board of Studies (BOS), University of Mumbai for the year 2010 to 2015.
- Member-Board of Studies (BOS). Somayya College, Vidyavihar, Mumbai (an autonomous College) from 2017 till date
- Organizing secretary of PLANTA the festival of Plants in The department every year
- Chairman of Philosophical Association to conduct different functions and events during annual fest, gathering, Vidnyan Tarang etc.
- Received award as an Eminent Researcher in Life Sciences at 3rd International Conference on Science & Technology for Society in Singapore, Theme Conservation of Non-Conventional Energy Sources through Advanced Technological and its Social Approaches for Sustainable Development at MIDS Campus, Singapore (11-13 may 2017).
- Awarded Fellowship by Global Society for Basics and Applied Science (GSBAS), Mumbai, India
- Reviewer for Bioremediation Journal (International) Taylor & Francis Group. ISSN 1088-9868 (Print), 1547-6529 (Online) Publication office: Taylor & Francis, Inc., 325 Chestnut Street, Suite 800, Philadelphia, PA 19106
- Reviewer for the Journal of Applied Research on Medicinal and Aromatic Plants, Elsevier Science, Publication

**Topics taught:**

- Environmental Botany: Solid waste management
- Environmental Biotechnology
- Ecology and environment
- Conservation of ecological habitats

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