

BIODATA

NAME : Dr. Adhapure Nitin Narhari

DESIGNATION : Head, Assistant Professor

DEPARTMENT : Biotechnology and Microbiology

QUALIFICATION : M.Sc., Ph.D., CSIR-NET, SET, ICAR-NET

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TEACHING EXPERIENCE : 10 years (UG & PG)

RESEARCH EXPERIENCE : Dec. 2008 to Feb 2010 – Research Fellow
(Golden Jubilee Fellowship)
2010 to till date - Teaching and Research

BOOKS PUBLISHED

:

Sr. No.	Title	Authors Name	Publisher	Year of Publication
1.	Marathi Vishvkosh (09 Articles)	Adhapure N.N.	Maharashtra Rajya Marathi Vishvkosh Nirmiti Mandal, Mumbai	2018
2.	(Book Chapter) Diversity and Bioprospecting of Yeasts from Extreme Environments	Shiv Mohan Singh, Nitin Adhapure and Rohit Sharma	Springer-Nature	2019

RESEARCH ARTICLES PUBLISHED : 14

Crous, P.W.; ...**Adhapure, N.N.**;.....et al., (2019) Fungal planet description sheets, *Persoonia* 42 868-950. (**Impact factor 6.86**)

Pranjali S. Rajegaonkar, Bhakti A. Deshpande, Manjushri S. More, Shivaji S. Waghmare, Vishal V. Sangawe, Areeb Inamdar, Mahendra D. Shirsat, **Nitin N. Adhapure**, (2018) Catalytic reduction of p-nitrophenol and methylene blue by microbiologically synthesized silver nanoparticles, *Materials Science and Engineering: C*, 93, 623-629. **Elsevier**. (Impact Factor 5.08)

Vyenkatesh Joshi, Neha Shah, Prashant Wakte, Prashant Dhakephalkar, Anita Dhakephalkar, Rahul Khobragade, Bhushan Naphade, Sajid Shaikh, Arvind Deshmukh, **Nitin Adhapure** (2017) *Environmental Science and Pollution Research* 24 (36)28277-28286 (**Springer-Nature**) (Impact Factor 2.80).

V. Raut, I. Shaikh, B. Naphade, K. Prashar, and **N. Adhapure**, (2017) Plant growth promotion using microbial IAA producers in conjunction with azolla: a novel approach,

Chemical and Biological Technologies in Agriculture 4:1. **Springer–Nature**. (Scopus SJR 0.505)

Kulkarni S., Thakkar V., Bartakke K and **N. Adhapure** (2015) Microbial production of β lactam antibiotic and assesment of β lactamase producing abilities of pathogens, *Global Journal of Bioscience and Biotechnology*. **4**: 107-111

Adhapure, N.N., P.K. Dhakephalkar, A.P. Dhakephalkar, V.R. Tembhurkar, A.V. Rajgure, A.M. Deshmukh (2014), Use of large pieces of printed circuit boards for bioleaching to avoid ‘precipitate contamination problem’ and to simplify overall metal recovery, *MethodsX*, Volume 1, 181-186, ISSN 2215-0161. **Elsevier** (SJR 0.640).

Adhapure, N. N., Waghmare, S. S., Hamde, V.S. and Deshmukh, A. M., (2013) Metal solubilization from powdered printed circuit boards by microbial consortium from bauxite and pyrite ores, *Applied Biochemistry and Microbiology*, **49**(3) pp. 256-262. **Springer**. (Impact Factor 0.707)

Jadhav A.B., Bura, D.S., Borage A. A., Ghogare P.D. and **Adhapure N.N.** (2014) Microbial decolourization of Rathiline Navy Blue dye using immobilized fungal and actinomycetal biomass. *Nature Environment and Pollution Technology* **13**(3): 535-540. ISSN 0972-6268. (Scopus SJR 0.139)

Ghodechor, V., Prabhu, R., Shaikh, S., Bhutada S., and **Adhapure N.** (2013) Distance decay analysis of the alkaliphilic bacteria isolated from Lonar soda lake, *Journal of Global Biosciences* **2**(6): 174-180. ISSN: 2320-1355.

Thokal P. J., Shelar B. L., Shaikh S.H. and **Adhapure N.N.**(2013) Microbial optimized production of Indole acetic acid and assessment of other plant growth promoting activities, *International Journal of Science and Nature*, **4** (4): 627-632. ISSN 0973- 3140 (Print) ISSN 2229 – 6441 (Online)

Mujawar A.S., **Adhapure N.N.**, Pathade G.R. and A.M. Deshmukh (2013) Studies on the antimicrobial potential of plant materials against bacterial and fungal strains, *International Journal of Science and Nature* **5**: 42-47 ISSN 0973- 3140 (Print) ISSN 2229 – 6441 (Online)

Phatake Y.B., Punde, P.S., **N.N. Adhapure** and Ghogare, P.D. (2013) “Screening of *Serratia marcescens* from prodigiosin production, optimization and bioactivity evaluation of produced Prodigiosin, *Continental Journal of Microbiology* **7** (1): 1-10. ISSN: 2141 4106.

Pawar, P.B., Joshi, K.G., Khobragade, R.M., Deshmukh A.M. and **N.N. Adhapure**, (2014) Screening, optimization of medium and solid state fermentation for L-Asparaginase production, *Global Journal of Bioscience and Biotechnology*, **3** (1) : 91-96 ISSN 2278 – 9103.

Adhapure N.N. and A.M. Deshmukh (2014) E-waste: A global Problem, Proceedings of National conference, Andoor, Osmanabad M.S. India.

RESEARCH PAPER PRESENT :

- Presented a poster in an International conference on “Biotechnology for Better Tomorrow” held at Aurangabad during 6-9 Feb. 2011.
- Presented a poster in India International Science Festival 2018 at Lucknow on “Laboratory Waste to Bioenergy”

RESEARCH STUDENTS :

- 04 research Students are working under funded projects of DBT and BIRAC

RESEARCH PROJECT**List of Currently Operated Sponsored Projects as PI**

Sr. No	Title	Sponcer	Amount	From Date	To Date	Major Out come
01	Foldscope as a research tool for studying endohyphal bacteria	DBT	08 lakhs	01April 2018	31 May 2019	Studies are in progress
02	Pilot scale studies of electronic waste management using economical and eco friendly method	BIRAC	27.5 lakhs	Sanctioned (Jan 2019)		

List of Currently Operated Sponsored Projects as Co-I

Sr. No	Title	Sponcer	Amount	From Date	To Date	Major Out come
01	Scale up of technology for Laboratory waste treatment with simultaneous generation of Bioenergy	DST	19.81 lakhs	Sanctioned (Nov. 2019)		

List of Completed Sponsored Projects as PI. :

Sr. No	Title	Sponcer	Amount	From Date	To Date	Major Out come
01	Co processing of waste water and production of 3 rd generation biofuel	UGC (CPE Phase II)	0.5 lakhs	2016	2017	Have developed a process of pre-treatment and filed Indian patent application

M.Sc. Dissertations guided: 12**B.Sc. Dissertations guided: 4****B.Sc. Dissertations co-guided: 1**

INVITED / SPECIAL LECTURES :

- Delivered a talk in Dr. B. A. M. University, Sub-campus Osmanabad on “Phage genetics”
- Delivered a talk in New Arts, Commerce and Science college, Ahmednagar on “Biochemistry and Physiology of Hormone”
- Delivered a talk in Dr. B. A. M. University, Sub-campus Osmanabad on “Recombinant DNA technology”
- Delivered a talk on “Microbial physiology” in New Arts, Commerce and Science college, Ahmednagar
- Delivered a talk and gave Hands on Training on “Development of laboratory scale anaerobic digester for Microbiology laboratory effluent treatment with simultaneous production of Bioenergy” at Government College of Arts and Science Aurangabad on 02-07-16.
- Delivered a talk on “Carreer Opprtunities in Life Sciences” at Sir Sayyad College, Aurangabad on 18-01-2018.
- Delivered a talk on “Carreer Opprtunities in Life Sciences” at Deogiri College, Aurangabad on 14-09-2019.
- Conducted workshop on “Journey to Microbial World” at Zila Parishad School, Jijamata College, New Arts College, Ahmednagar and at Mukul Mandir school.

ANY OTHER :**a. List of Patents**

Sr. No.	Patent Title	Name of Applicants	Patent Number	Award Date	Country	Status
1	A PROCESS FOR UTILIZATION OF WASTE MICROBIAL CULTURE MEDIA AS A FEED FOR ANAEROBIC DIGESTER TO GENERATE BIO GAS	Adhasure Nitin Narahari, Anil Shripadrao Bhuktar and Arvind Madhavrao Deshmukh	201721029643 (Application number)	-	India	Filed and Published (15 September 2017) Awaiting Examination

b. Technologies Commercialized

Technology Sr. No.	Title of Technology	Brief Detail	References
Technology 1	Low cost Biogas storage balloons	We have manufactured low cost biogas storage balloons using a special polymeric material. Recently, a researcher has purchased two balloons of varying dimensions	Supporting documents can be obtained from the Institution

c. Technologies Developed

Technology Sr. No.	Title of Technology	Brief Detail	References
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<p>Technology 1</p>	<p>E-waste management using Economical and Ecofriendly Method</p> <p>(BIRAC is now supporting for pilot scale studies of this technology)</p>	<p>An eco friendly method has been developed for treating electronic waste was successful at lab scale studies. The method consists of utilization of bacteria for the removal of hazardous metals from e-waste and subsequent recovery by electrodeposition.</p> <p>Achieving > 99% leaching and >92% recovery in powdered form of copper and >93% leaching of Zinc</p>	<p>The methods (without disclosing the know how) were published with Elsevier and Springer.</p> <p>Two Industries (based in Chennai) working in E-waste have approached us with that reference.</p>
<p>Technology 2</p>	<p>A Novel method of sowing seeds along with azolla and IAA producers</p>	<p>When seeds were sowed along with azolla and Indole acetic acid producing bacteria, azolla works as continuous source of tryptophan, a precursor for IAA</p>	<p>The method (without disclosing the know how) have been published in one of journal of Springer –Nature</p>
<p>Technology 3</p>	<p>Laboratory Waste to Bioenergy</p> <p>(Indian Patent- Filed and Published)</p>	<p>Microbiology and Biotechnology laboratory waste can be efficiently converted to biomethane using a special pretreatment prior to its use.</p>	<p>Indian Patent Applications has been filed and published on 15 Sept. 2017</p> <p>Application no. 201721029643</p>
<p>Technology 4</p>	<p>Yard waste/ Paper waste to Bioenergy</p>	<p>Leaf litters and paper waste is considered as complex and troublsome substrates for using as a feed for anaerobic digester. With our technology we made it possible.</p>	<p>We are providing consultancy for treating such kind of waste. Many Institutions have approached and benefited with this technology.</p>

d. Collaborative Projects

- A collaborative research was carried out with **Agharkar Research Institute, (ARI) Pune** during 2008 to 2010 a joint publication on said work is, <https://doi.org/10.1016/j.mex.2014.08.011>(Elsevier) (**SJR 0.497**) and <https://doi.org/10.1007/s11356-017-0780-x> (**Springer -Nature**) (**Impact factor 2.80**)
- A collaborative research was carried out with **RUSA Center for Advanced Sensor Technology (RUSA-CAST)** of Dr. B.A.M.University, Aurangabad during 2016-17, a joint publication on said work is doi: 10.1016/j.msec.2018.08.025 (**Elsevier**) (**Impact Factor 5.08**).

- A Collaborative research is being carried out with **National Center for Microbial Resource (NCRM)**, **NCCS (National Center for Cell Science)** on Identification and characterization of **Novel Dimorphic Yeast**. The article reporting novel species of yeast has been communicated (February 2019) to a journal named *Persoonia-Fungal Planet*.
- e. Consultancy Services**
- Have provided consultancy services to NKSPT's Arts Commerce and Science College, Badnapur, Dist. Jalna for establishing 2000 Litre capacity anaerobic digester.
- f. Professional recognition, awards, fellowships received.**
- Awarded for **Best Innovative Idea (Success story)** by BIRAC, DST and VIBHA through the auspicious hands of Hon'ble Dr. Vijay Bhatkar and Hon'ble Dr. Renu Swarup (Secretary, DBT) in India International Science Festival on 08 October 2018 at Lucknow. The Award consisted of memento, certificate and prize money of Rs. 25,000. The award was given for successfully working on innovative idea of utilizing bacteria for metal removal from e-waste.
 - Honored with **"Young Scientist Award"** from Microbiologists Society, India through the auspicious hands of Dr. S.P Kane, Vice Chancellor, RTMN University, Nagpur (M.S.)
 - **"Golden Jubilee Fellowship"** from Dr. B.A.M. University, Aurangabad for carrying out Ph.D.
 - Recognized as **"Outstanding Contributor in Reviewing"** in Feb 2017 by Hydrometallurgy, Elsevier, Amsterdam, The Netherlands.
 - **Worked as a reviewer for *Journal of Hazardous Material (Elsevier)*, *Hydrometallurgy (Elsevier)*, *Journal of Environmental and Chemical Engineering (Elsevier)*, *Bioprocess and Biosystems Engineering (Springer-Nature)*, *Waste and Biomass Valorization (Springer-Nature)*, *Metallurgical and Materials Transactions B (Springer-Nature)*, *Journal of Applied Phycology (Springer-Nature)*, *Environmental Sustainability (Springer-Nature)*, *Chemical and Biological Technologies in Agriculture (Springer-Nature)* *Separation Science and Technology (Taylor and Francis)* and *RSC Advances (Royal Society of Chemistry)*.**
- g. Nucleotide depositions at NCBI: 06**
1. Dhakephalkar, P. K., **Adhapure, N. N.** and Dhakephalkar,A.P.(2013) Uncultured Acidithiobacillus sp. clone 600-c 16S ribosomal RNA gene, partial sequence Accession: KC596341.1 <http://www.ncbi.nlm.nih.gov/nuccore/KC596341.1>
 2. Dhakephalkar, P. K., **Adhapure, N. N.** and Dhakephalkar,A.P.(2013) Uncultured Acidithiobacillus sp. clone 600-b 16S ribosomal RNA gene, partial sequence Accession: KC596340.1 <http://www.ncbi.nlm.nih.gov/nuccore/KC596340.1>
 3. Dhakephalkar, P. K., **Adhapure, N. N.** and Dhakephalkar,A.P.(2013) Uncultured Acidithiobacillus sp. clone 600-a 16S ribosomal RNA gene, partial sequence Accession: KC596339.1 <http://www.ncbi.nlm.nih.gov/nuccore/KC596339.1>

4. Dhakephalkar, P. K., **Adhapure, N. N.** and Dhakephalkar,A.P.(2013) Uncultured Acidithiobacillus sp. clone 600-2 16S ribosomal RNA gene, partial sequence Accession: KC596338.1 <http://www.ncbi.nlm.nih.gov/nuccore/KC596338.1>
5. Dhakephalkar, P. K., **Adhapure, N. N.** and Dhakephalkar,A.P.(2013) Uncultured Acidithiobacillus sp. clone 400-1 16S ribosomal RNA gene, partial sequence Accession: KC596337.1 <http://www.ncbi.nlm.nih.gov/nuccore/KC596337.1>
6. Dhakephalkar, P. K., **Adhapure, N. N.** and Dhakephalkar,A.P.(2013) Uncultured Acidithiobacillus sp. clone 400-3 16S ribosomal RNA gene, partial sequence Accession: KC596336.1 <http://www.ncbi.nlm.nih.gov/nuccore/KC596336.1>

h. Seminar/Conferences/Symposium/Workshops participated- 21

Dr. Adhapure Nitin Narhari