

## Dipti Mayee Dash, Ph.D.

Guest Faculty

Department of Biotechnology

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### EDUCATION

Degree	Board/University	Institution	Year of passing
Ph.D. Environmental Biotechnology	Vellore Institute of Technology	Vellore Institute of Technology, Vellore, Tamil Nadu	2015-2022
M.Sc Biotechnology	Vellore Institute of Technology	Vellore Institute of Technology, Vellore, Tamil Nadu	2013-2015
B.Sc Biotechnology	Utkal University, Odisha	Trident Academy of Creative Technology, BBSR, Odisha	2010-2013

### LIST OF PUBLICATIONS (International/National)

S.N.	Article details	Impact factor
1.	<b>Dash, D.M.</b> and Osborne, W.J. <i>A systematic review on the implementation of advanced and evolutionary biotechnological tools for efficient bioremediation of organophosphorus pesticides.</i> Chemosphere. 2023 Feb; 313: p.137506.	8.943
2.	<b>Dash D.M.</b> and Osborne W.J. <i>Rapid biodegradation and biofilm-mediated bioremoval of organophosphorus pesticides using an indigenous Kosakonia oryzae strain-VITPSCQ3 in a Vertical-flow Packed Bed Biofilm Bioreactor.</i> Ecotoxicology and Environmental Safety. 2020 Apr 1; 192:110290.	7.129
3.	<b>Dash D.M.</b> and Osborne J.W. <i>Biodegradation of monocrotophos by a plant growth</i>	3.519

	<i>promoting Bacillus aryabhattai (VITNNDJ5) strain in artificially contaminated soil.</i> International Journal of Environmental Science and Technology. 2019; 17(3):1475-90.	
4.	<b>Dash, D.M.</b> , Itusha, A., and Osborne, J. <i>Bioremoval of Acephate by biofilm-forming Enterobacter cloacae - VITDAJ8.</i> Asia Pacific Journal of Molecular biology and Biotechnology. 2020; 28(4):68-80	<b>SNIP 0.26</b>
5.	<b>Dash, D.M.</b> , Itusha, A., Barik. M., Das. A. and Osborne J.W. <i>Biosurfactant Production by Bacterial Isolates from Marine Sediments.</i> J. Pure Appl. Microbiol. 2014, 8(6):5045-5050	<b>SNIP 0.29</b>

#### SEQUENCES SUBMITTED TO NCBI (GENBANK)

Strains	Accession no.	Authors	Year
<i>Enterobacter aerogenes</i> (VITDAMJ1)	KJ437479	<b>M.D. Dipti</b> , I. Ankita, B. Monalisa, and W.J. Osborne	2014
<i>Bacillus amyloliquefaciens</i> (VITAMDJ1)	KP100335	Ankita I, Monalisa B, <b>Dipti M. D.</b> and Osborne W. J.	2014
<i>Enterobacter cloacae</i> (VITDAJ8)	KP305912	<b>Dash, D.</b> , Itusha, A. and Osborne, J.W.	2014
<i>Kosakonia oryzae</i> (VITPSCQ3)	KR149275	<b>Dash, D.M.</b> , Osborne, J.W.	2015
<i>Bacillus aryabhattai</i> (VITNNDJ5)	KU598848	<b>Dash, D.M.</b> , Purshotham, N., Udaykumar, N. and Osborne, J.W.	2016
<i>Pseudomonas indica</i> (VITPADJ5)	KU598847	<b>Dash, D.M.</b> , Oak, P.S., Dawdani, A.R. and Osborne, J.W.	2016
<i>Enterobacter ludwigii</i> (VITDJ2)	MH101750	<b>Dash, D.M.</b> and Osborne, J.W.	2018
<i>Ochrobactrum daejeonense</i> (VITDJ8)	MN258541	<b>Dash, D.M.</b> and Osborne, J.W.	2019

#### CONFERENCES (ORAL/POSTER)

1. **Dipti Mayee Dash** and Osborne, J.W.; "Co-metabolic biodegradation of Organophosphorus pesticides using consortium of plant growth-promoting rhizobacteria", *National Seminar on Marine Natural Products as Pharmaceutical Agents (NSMNP)* at Sathyabama Institute of Science and Technology, 2019
2. **Dipti Mayee Dash** and Osborne, J.W.; "Biodegradation of monocrotophos by a plant growth promoting Bacillus aryabhattai (VITNNDJ5) strain", *International conference on recent advances in biomedical technology (RABT)* at Thiruvalluvar University, Vellore, 2018

3. **Dipti Mayee Dash** and Osborne, J.W.; “Application of a high throughput method for the biodegradation of Curacron and Quinalphos: A bioreactor based approach”, *International Conference on Current Trends in Biotechnology (ICCB)* at Vellore Institute of Technology, India, 2016

## WORK EXPERIENCE

### Research Experience

- Mini project on “*Biosurfactant Production by Bacterial Isolates from Marine Sediments*” (July 2013 – Nov 2013) at VIT, Vellore
- Mini project on “*Isolation of endophytes from fig, garlic and pepper and their role in the biosynthesis of bioactive compounds*” (Jan 2014 – April 2014) at VIT, Vellore
- Mini project on “*Preliminary studies on the bioremoval of monocrotophos and acephate using bacterial biofilm based bioreactor*” (July 2014 – Nov 2014), at VIT, Vellore
- **Master thesis:** Six months dissertation on “*Application of a high throughput method for the degradation of curacron and Quinalphos using bacterial biofilm: A bioreactor based approach*” (Dec 2014 - June 2015), at VIT, Vellore
- **Ph.D. thesis:** Doctoral research on “*Phyto and Rhizoremediation strategies for the biodegradation of Organophosphorus pesticides: A metagenomic approach*” (July 2015 – April 2022) at VIT, Vellore
- Formerly working as Teaching cum Research Associate at Vellore Institute of Technology (Jan 2015 - Jan 2020)

### Teaching Experience

Assisted and handled UG/PG level laboratory classes for the following subjects

Institution	Laboratory courses
Vellore Institute of Technology Vellore, India (2015-2020)	Advanced Microbiology
	Agricultural Microbiology
	Plant biochemistry and physiology
	Molecular biology
	Bioremediation
	Food biotechnology
	Fermentation Technology