

## PERSONAL PROFILE

- **Name** : Dr. Sikha Dutta
- **Designation** : Asst. Professor
- **Department** : Department of Botany
- **Academic Qualifications** : B.Ed., M.Sc., Ph.D.



- **Present Research Scholars** :

Year of Registration	Name of Research Scholar & Designation	Research Fellowship	Degree Offered	Name of the Guide(s)
2009	Malabika Das	Part Time	Ph.D.	Dr. Sikha Dutta
2009	Tamal Mondal	Part Time	Ph.D.	Dr. Sikha Dutta
2011	Anindita Mukherjee	SRF- UGC	Ph.D.	Dr. Sikha Dutta
2012	Medhatithi Sen	Project Fellow	Ph.D.	Dr. Sikha Dutta
2013	Avishek Sarkar	JRF(UGC-CAS, Dept. of Botany, B.U.)	Ph.D.	Dr. Sikha Dutta & Dr. T.K. Maiti
2014	Abhinanda Ghosh	Part Time	Ph.D.	Dr. Sikha Dutta
2014	Soumi Banerjee	Part Time	Ph.D.	Dr. Sikha Dutta
2014	Kuheli Roy	Part Time	Ph.D.	Dr. Sikha Dutta

**This is awarded: 4 in no.**

1. 'STUDIES ON THE SPORE DENSITY, SPECIES RICHNESS AND ROOT COLONIZATION OF ARBUSCULAR MYCORRHIZAL FUNGI AND ASSOCIATION OF DARK SEPTATE ENDOPHYTIC FUNGI IN THE ROOTS OF SOME MEDICINAL PLANTS OF WEST'

BY MRS. REBECA GHANTA UNDER BURDWAN UNIVERSITY, BURDWAN.

2. 'Ethnophytopathological studies of *Cassia alata* and the effect of VAM on its growth and productivity'

BY MRS. SAHELI CHATTERJEE UNDER BURDWAN UNIVERSITY, BURDWAN.

3. 'BIOREMEDIATION OF HEAVY METAL POLLUTION IN INDUSTRIAL WASTE WATER BY *Rhodotorula mucilaginosa* (A. Jörgensen) F. C. Harrison'.

By Dr. Sabyasachi Chatterjee UNDER BURDWAN UNIVERSITY, BURDWAN.

4. 'COLONIZATION OF VESICULAR-ARBUSCULAR MYCORRHIZAL FUNGI AND RHIZOBIUM IN ROOTS OF *Vigna mungo* AND ITS EFFECT ON PRODUCTIVITY AND RESISTANCE TO PATHOGENS'.

By Dr. Jayanta Chakraborty UNDER BURDWAN UNIVERSITY, BURDWAN.

#### Some best research publications:

1. **Sikha Dutta\*** and Jayanta Chakraborty, Sabyasachi Chatterjee, Sisir Ghosh and Narayan Chandra Chatterjee, 2010. Synergism of VAM and *Rhizobium* in Production and Metabolism of IAA in the Roots and Root nodules of *Vigna mungo*. **Current Microbiology, Springer Verlag, Germany**, 45(1): 237-248.
2. Saheli Chatterjee, Sabyasachi Chatterjee and **Sikha Dutta\***, 2010. A survey on VAM Association in three different species of *Cassia* and Determination of Antimicrobial property of these phytoextracts. **Journal of Medicinal Plant Research, Academic Journals Ltd., Academic Press, New York**; 4(4): 286-292..
3. Sabyasachi Chatterjee, **Sikha Dutta\***, Debdoot Gupta, Pranab Roy and Narayan Chandra Chatterjee, 2011. Study of a Lead Tolerant Yeast strain BUSCY1 (MTCC9315). **African Journal of Microbiology. Academic Journals Ltd., Academic Press, New York**, 5(30), 5362 - 537. .
4. Rebeca Ghanta, Radhanath Mukhopadhyay and **Sikha Dutta\***, 2012. An investigation on VAM Association in some Threatened Medicinal Plants of West Bengal, India, **Journal of Medicinal Plant Research. Academic Journals, Academic Press, New York**. Vol. 7(7), 315 – 323; 2013.
5. Chatterjee Sabyasachi, Chatterjee Narayan Chandra and **Dutta Sikha\***. 2<sup>9th</sup> October, 2012. Bioreduction of Chromium (VI) to Chromium (III) by a novel yeast strain *Rhodotorula mucilaginosa* (MTCC 9315). **African Journal of Biotechnology, Academic Journals Ltd., Academic Press, New York**. 11(83): 14920-14929.
6. Saheli Chatterjee, Sabyasachi Chatterjee and **Sikha Dutta\***, 2012. An overview on Ethnophytopathological studies of *Cassia alata* and the effect of VAM on its growth and productivity. **International Journal of Research in Botany**, 2(4): pp. 13-19; 2012.
7. Ghanta, Rebeca, Mukhopadhyay Radhanath and **Dutta Sikha\***. 2012. Occurrence of Dark Septate Endophytes in the Sporophytes of *Christella dentata*. **American Fern Journal**. 102(3): 216-223.
8. Suprakash Ojha, Jayanta Chakraborty, **Sikha Dutta**, and Chatterjee Narayan Chandra, 2008. Survey of the Deteriorative Effect of the Fungal Pathogens in Seeds and Grains in and around Burdwan. **Int. J. Plant Science**. Research Gate 8(2): 78-84..

9. **Sikha Dutta\***, Selima Khatun, Soumaya Banerjee, Suparma Chatterjee, and Narayan Chandra Chatterjee. 2008. Black spot disease of Rose (*Rosa centifolia*)- A new record from India. ***Int. J. Plant Science***. Research Gate 3(1): 294.
10. Indrajit Ghosh, Manaranjan Chakraborty, Suprakash Ojha, **Sikha Dutta**, and Narayan Chandra Chatterjee, 2008. Synergic Effects of VAM and Phenol Oxidases on Increased Productivity *vis-a-vis* Resistance against Fusarial Wilt of Brinjal and Tomato. ***Acta Phytopathologica et Entomologia Hungarica***. 44(1-2): 89-95.
11. Mukherjee Anindita, **Sikha Dutta** and Bandyopadhyay Avijit. October, 2012. Micropropagation of *Clerodendrum indicum* (L.)Kuntze: An unexplored medicinal plant. ***International Journal of Pharma and Biosciences, Elsevier***. 3(4): (B): 659-668.
12. Sukalyan Basu, Anindita Mukherjee, **Sikha Dutta** and Avijit Bandyopadhyay, 2012. Phytoaccumulation of iron uptake by callus tissue of *Clerodendrum indicum* (L.) Kuntze. ***Chemistry and Ecology, Taylor and Francis***. Accepted for publication in September, 2012.
13. Anindita Mukherjee, Bandyopadhyay Avijit and **Dutta Sikha\***. 2013. First report of leaf spot disease of *Clerodendrum indicum* caused by *Curvularia lunata*. ***International Journal of Pharma and Bioscience. Elsevier*** indexed. 4(3): (B) pp. 808-812; 2013.
14. **Sikha Dutta\***, 2013. Role of Mushrooms as nutraceuticals: An overview. ***International Journal of Pharma and Bioscience. Elsevier*** indexed. 3(4): B) pp.2013.
15. Tamal Mondal, Rupa Some and **Sikha Dutta\***, 2013. Studies on antioxidant and antimicrobial properties of some common mushrooms. (Accepted for publication which will be published on 30.06.2013, letter of acceptance is attached) . ***Journal of Today's Biological Sciences: Research & Review (JTBSRR)***..
16. Saheli Chatterjee, Sabyasachi Chatterjee and **Sikha Dutta\***. 2012. *Cassia alata*- an useful antimicrobial agent. ***Medicinal and Aromatic Plants. OMICS Group***. Vol. 2 (1):1000e143. .
17. Swadesh Santra, **Sikha Dutta\*** and N. C. Chatterjee. 2009. An Integrated Approach for Controlling Anthracnose (*Colletotrichum gloeosporioides*) Disease of *Saraca asoca*. 46(1)' pp. 45 – 51, ***J. Mycology and Plant pathology***. Indian Society of Mycology and Plant Pathology.
18. Manoranjan Chakraborty, **Sikha Dutta** and N. C. Chatterjee. 2004, Antagonistic Potential of Biocontrol Agents against *Botryodiplodia theobrome* causing Die-Back of bottlebrush (*Callistemon citrinus*). ***Acta Botanica Hungarica***. Hungarian Academy of Science. 46 (3-4), pp. 279-285..
19. **Sikha Dutta**, Manoranjan Chakraborty, Suprakash Ojha, Jayanta Chakraborty and N. C.

Chatterjee. 2006. Production and Optimization of Fe<sup>+</sup>(III) Specific Ligand, the Siderophore of Soil inhabiting and Wood Rotting Fungi as Deterrent to Plant Pathogens. *Acta Phytopathologica et Entomologia Hungarica*. Hungarian Academy of Science. 41 (3-4), pp. 237-248.

20. **Sikha Dutta** and N. C. Chatterjee. 2005. Interaction of *Trichoderma viride* with *Rhizopus stolonifer* during its pathogenesis and the associated resistance of the host. *Acta Phytopathologica et Entomologia Hungarica*. Hungarian Academy of Science. 40 (3-4), pp. 315- 322..

21. **Sikha Dutta** and N. C. Chatterjee. 2004. Raising of Carbendazim-tolerant Mutants of *Trichoderma* and Variations of their Hydrolytic Enzyme Activity in Relation to Mycoparasitic Action Against *Rhizopus stolonifer*. *Zetishrift fur Pflanzenkrankheiten und Pflanzenschutz*. Vol. 111 (6), pp. 557-565..

22. Rebeca Ghanta, **Sikha Dutta** and R. Mukhopadhyay. 2013. "An Investigation on Arbuscular Mycorrhizal Colonization in some Pteridophytes of West Bengal, India" . *American Fern Journal*. August, 14, 2013

### **BOOK WRITTEN:**

OXIDATIVE STRESS AND ROLE OF MUSHROOMS AS RESERVOIR OF POTENTIALLY ACTIVE NATURAL ANTIOXIDANTS - AN OVERVIEW in the book named "PLANTS AS A SOURCE OF NATURAL ANTIOXIDANTS ". The book will be published by CAB International, UK in 2013. The book will soon get ISSN no.

### **RESEARCH INTEREST:**

1. Mycorrhizal Research and its Applications for Improved Productivity.
2. Medicinal Plant Research.
3. Mushroom cultivation Technology and Investigation of their Medicinal Properties.
4. Bioremediation of Heavy Metal Pollution.

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