Name: Dr. Jnanendra Rath

Designation: Assistant Professor (Stage-II)

Qualification: Ph.D.

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Teaching Experience:
10 years

Research Experience:
11 years

Research areas/Interest:

- Extremophilic Cyanobacterial
- Stress Physiology
- Natural product and drug discovery
- Metabolomics

Awards and Honours:

- Raman Post-Doctoral Fellow (Indo-US 21st century knowledge initiative)
- NIH Fellow
- Partner of UNESCO affiliated “Expert Center for Taxonomic Identification” (ETI)
- LOBOME Award

Sanctioned Project:

1. UGC (2009-2012) Project entitled "Algal diversity of East Calcutta wetland, Ramsar site and evaluation of its phycoremediation potential.
2. DST (2010-2013): Project entitled "Molecular taxonomy of stress tolerant cyanobacteria and characterization of stress proteins and antioxidant defense systems in selected anhydrobiotes".
3. CSIR (2010-2013): Project entitled "Prospecting chemical components from Cyanobacteria to deal with UV Radiation".

Significant publications:

Book: (3)

1. Mandal S and *Rath J* (2015) Extremophilic cyanobacteria: The hidden treasure for novel drug development. Springer, USA; ISSN 1864-8118, ISBN 978-3-319-12008-9.
2. Adhikary S P, Jena M and *Rath J* (2009) Freshwater algae of coastal districts of Orissa state, India. *Bibliotheca Phycologica,* Band 115. Willkommen bei den Verlagen E.Schweizerbart, Borntraeger and Cramer Science Publishers, Stuttgart, Germany ISBN: 978-3-443-60042-6; ISSN: 0067-8066.
3. *Rath J* and Adhikary SP (2005) Algal Flora of Chilika Lake. Daya Publishing House, New Delhi, ISBN: 8170353513.

Chapters in Edited Books: (8)

1. Rath J, Jena M and Adhikary SP (2013) Biodiversity analysis of soil and freshwater algae of eastern and north-eastern region of India *In*: Ecorestoration and biodiversity conservation. Ed. Mishra GP and Gupta A. Avishkar Publishers, Distributors, Jaipur, Rajastan pp. 32-54.
2. Rath J, S Mandal and Padhi BK (2010) Prospective in Diatom Nanotechnology *In*: M.K. Das (ed.) Algal Biotechnology, Daya Publishing House, New Delhi pp. 25-35.
3. Rath J and Mandal S (2009) Sequestration of Heavy metals from Waste water Effluent by Micro-algae *in:* Environmental Microbiology Eds. Mishra BB, Nanda DR and Dave SR. A P H Publication Corporation, New Delhi, pp. 55-70.
4. *Rath. J.* and S.P. Adhikary (2007) Bioprospecting of marine algae *In*: Gupta R. K and V D. Pandey (eds.) *Advances in Applied phycology*. Daya Publishing house, New Delhi. Pp 42-55.

Referred Journals: (23)

1. *Rath J*, Mandal S and Adhikary SP (2014) Ecophysiology of *Lyngbya aestuarii* to varying salinity regimes *Acta Physiologiae Plantarum,* 36: 409-419 (Impact factor 1.524).
2. Mandal S and *Rath J* (2013) Algal colonization and its ecophysiology on the fine sculptures of terracotta monuments of Bishnupur, West Bengal, India. *International Biodeterioration and Biodegradation* 84: 291-299. (Impact factor 2.235)
3. Rath J, *Mandal S* and Adhikary SP (2012) Salinity induced synthesis of UV-screening compound scytonemin in the cyanobacterium *Lyngbya aestuarii Photochem photobiol B. Biology* 115: 5-8 (Impact factor 3.110).
4. Mandal S, *Rath J* and Adhikary SP (2011) Adaptation strategies of the sheathed cyanobacterium *Lyngbya majuscula* to ultraviolet-B Photochem photobiol B. Biology 102: 115-122 (Impact factor 3.110).
5. Samad LK, *Rath J* and Adhikary SP (2008) Growth response and protein profile of two different *Scytonema* species from cave walls and soil crusts in light and dark. Algological Studies 127: 49-60.
6. *Rath J* and Adhikary SP (2007) Response of the estuarine cyanobacterium *Lyngbya aestuarii* to UV-B radiation. *J. Appl. Phycol* 19: 529-536. (Impact Factor: 2.492)
7. Ratha SK, Jena M, *Rath J* and Adhikary SP (2007) Three Ecotypes of *Compsogon coeruleus* (Rhodophyta) from Orissa State, East Coast of India. *Algae* (*Korean Journal of Phycology*) 22 (2): 1-10. (Impact Factor: 0.339)
8. *Rath J.* and Adhikary SP (2006) Marine macro-algae of Orissa, east coast of India. *Algae* (*Korean Journal of Phycology*) 21(1): 49-59. (Impact Factor: 0.339)
9. *Rath J.* and Adhikary SP (2005) Distribution of marine macro-algae at different salinity gradients in Chilika lake, east coast of India *Ind. J. Mar. Sc*. 34 (2): 237-241. (Impact Factor: 0.313).
10. *Rath J.* and Adhikary SP (2004) Effect of alkali treatment on the yield and quality of agar from *Gracilaria verrucosa* (Rhodophyta, Gracilariales) occurring at different salinity gradient of Chilika lake *Ind. J. Mar. Sc*. 33 (2): 202-205. (Impact Factor: 0.313)

GenBank Accession number:

JX129163, JX513959, JX513958, JX421696

Patents /Any other achievements: Established VISVA-BHARATI Culture Collection of Algae (VBCCA 931) Affilied to World Federation of Culture Collection
Lab members: Mr. Shailen Bhakat