# **DR. SRINIVAS ACHARYA**



<i>office:</i> Room No. 66 Department of Environmenal Science, Govt. Auto. College, Phulbani, Kandhamal	en	nail: <u>srinivasacharya06@gmail.com</u> <b>Mob: +91 9437441556</b> <u>https://orcid.org/0000-0001-6095-</u> <u>4840</u> Scopus ID 7202925058
EMPLOYMENT	Nov. 2014–21.02.2023	Assistant Professor (contractual), Utkal
	22.02.2023-cont	Assistant Professor (I), Government Autonomous College, Phulubani
EDUCATION	October, 2008 - October, 2016	Ph.D. in Environmental Science
Utkal University		<i>Thesis Title:</i> A study on growth and metabolic efficiency of Rhizophoraceae mangroves of Bhitarkanika (Orissa) subject to abiotic stress <i>Areas:</i> Ecosystem conservation and Stress physiology <i>Supervisors:</i> Prof. P.K. Mohapatra & Prof. M. Kar
Utkal University	August, 2004 - August, 2006	M.Sc. Degree in Environmental Science Department: Botany Thesis Title: Geomatics aided standard drinking water quality analysis of a part of Bhubaneshwar city. Areas: Environmental Geology and Remote sensing Advisor: Dr. P. Mishra (Scientist, ORSAC)
Utkal University	May, 2001 - July, 2004	Bachelor of Science Institute: Salipur College, Salipur Hons: Physics
UGC	December,2012	<b>UGC-NET</b> <i>Subject:</i> Environmental Science

# HONORS AND AWARDS

- JRF and SRF under UGC-RFSMS scheme 2009-2014
- UGC-NET LS in Environmental Science in June, 2012

• Winner of best poster presentation in National Seminar by P.G. Department of Botany, Utkal University in 2009 & 2011.

- NCC 'A' grade certified in 1999 during schooling.
- Life Member of National Environmental Science Academy (NESA, L.M. No. 1610), India.
- Life Member of Odisha Botanical Society, Odisha, India.

# RESEARCH/ INDUSTRIAL EXPERIENCE

### ORSAC, Bhubaneswar

December 2008 - May 2009

2014 to 2023

Designation: Research Assistant *Topics:* ISRO sponsored project "Wetland Inventory Mapping of India" in ORSAC, Bhubaneswar.

# TEACHING EXPERIENCE

# M.Sc. Environmental Science (Paper Code: ES-101, 102, 103, ES-201, ES-301)

Department of Botany, Utkal University *Duties:*taught recitations, held office hours, graded exams

### Invited lectures/keynote speaker:

- Green Skill Development Program (GSDP), ENVIS Secretariat, Ministry of Environment, Forest & Climate Change (MoEF&CC), Bhubaneswar, 2018: Impact Assessment
- ODM Public School, Bhubaneswar (Department of Life Science), 2019, *Topic- Chlorophyll fluorescence in stress response*

# SELECTED TALKS AND PRESENTATIONS

- [1] Presented Paper entitled "Phytochemical screening and antimicrobial activity of different extracts of *Bruguiera gymnorrhiza* L. against some important human pathogens." In the International (53<sup>rd</sup> AMI) Conference on "Microbial World: Recent Innovations and Future Trends" organized by KIIT University, Bhubaneswar, Odisha on 22<sup>nd</sup> – 25<sup>th</sup> November, 2012.
- [2] Presented Paper entitled "Effect of Salinity on biochemical and OJIP fluorescence induction kinetics of *Rhizophora apiculata* BI." In International Conference on "Frontiers in Biological Research" at NIT, Rourkela, Odisha on 1<sup>st</sup> – 3<sup>rd</sup> October, 2010.
- [3] Presented Poster in the UGC (DRS-SAP II) sponsored national seminar on "Biotechnology and Stress Management" at Department of Botany, Utkal University, Bhubaneswar in 16th March, 2011.
  [4] Presented Poster containing a part of my research work in the 80th annual session of National Academy of Sciences from December 2-4, 2010 at Jaipur, Rajastan.

[5] Presented Poster containing a part of my research work in the 35th annual conference of Orissa Botanical Society organized by Deptt. of Botany, Chirst College, Cuttack from December 29-30, 2010.

[6] Presented Poster entitled "Salinity induced alternations in growth and OJIP fluorescence responses of Rhizophora apiculata BI." In the national seminar on "Environmental Stress Impacts on Plants" at Department of Botany, Utkal University, Bhubaneswar in 2010.

### PUBLICATIONS

#### PhD thesis

[7] Srinivas Acharya, "A study on growth and metabolic efficiency of Rhizophoraceae mangroves of Bhitarkanika (Orissa) subject to abiotic stress". Departmental Research Committee: Prof. P.K. Chand,SRC (chairperson), Prof. P.K. Mohapatra (Guide), Prof. M. Kar (Co-Guide) Prof. P.K. Mohanty, Prof. A.B. Das, Dr. C. Pradhan, Dr. B. Panda and Dr. B. Kullu asMember, SRC-Environmental Science, Department of Botany,Utkal University, 2016.

#### **Book Articles (Authored/Edited)**

- [8] Acharya S., Nath J. and Acharya D. (2019). Waste water treatment using smelter waste. Sabujima (ISSN 0972-8562). 27: 30-33.
- [9] **Acharya S.** (2013). Rhizophoraceae mangroves: An ethno-medicinal resource of coastal Odisha. *Sabujima* (ISSN 0972-8562). 21: 24-26.
- [10] Acharya S. (2010). Storm control system of Mangroves. Sabujima (ISSN 0972-8562), pp. 53-57.
- [11] Sethi B.K., Acharya S. and Sahoo S.L.(2010). Mushrooms: Mill Fillers or Killer Meals. Sabujima (ISSN 0972-8562), pp. 3-7.
- [12] Diptiman Sahoo, Gyanesh Dash, KTKG Ranjan Mohanty, **Srinivas Acharya**, Ehsan Amiri Ardakani, Monali Priyadarsini Mishra, Gyanranjan Mahalik (2022). Floristic and Ethnobotanical Study of Indigenous Plants of Ranapur Reserve Forest, Odisha, India. Sustainable Wildlife Management, IntechOpen.DOI: 10.5772/intechopen.106555

#### Journal Articles

- [13] Khillar R., Acharya S. and Mohapatra P.K. (2010). Development of Tolerance Solanum melongena
  L. to field application of dimethoate. Bulletin of Environmental Contamination and Toxicology. 85(1):67-71. <u>https://doi.org/10.1007/s00128-010-0036-7</u> Impact Factor: 2.807
- [14] Jena S., Acharya S. and Mohapatra P.K. (2012). Variation in effects of four OP insecticides on photosynthetic pigment fluorescence of *Chlorella vulgaris* Beij. *Ecotoxicology and Environmental safety*. 80: 111-117. <u>https://doi.org/10.1016/j.ecoenv.2012.02.016</u> Impact Factor: 7.129
- [15] Srinivas Acharya, Sarita Jayanti Das, Chinmay Pradhan, Rama Chandra Jena and Pradeep Kumar Chand (2017). Journal of Environmental Biology. ISSN: 2394-0379 (online)38(6): 1397-1403. Journal of Environmental Biology. <u>http://doi.org/10.22438/jeb/38/6/MS-183</u> Impact Factor: 0.781;NAAS rating: 6.56
- [16] Pallavi Jali, Srinivas Acharya, Gyanranjan Mahalik, Anath Bandhu Das and Chinmay Pradhan (2019). Low dose cadmium (II) induced antifungal activity against blast disease in rice. *Physiological and Molecular Plant Pathology*.105: 47-53. <u>https://doi.org/10.1016/j.pmpp.2019.101422</u> Impact Factor (2018): 2.741
- [17] S. Acharya, D.K. Patra, C. Pradhan and P.K. Mohapatra (2020). Anti-bacterial, anti-fungal and antioxidative properties of different extracts of *Bruguiera gymnorrhiza* L.. *European Journal of*

Integrative Medicine. 36: 101140. <u>https://doi.org/10.1016/j.eujim.2020.101140</u> Impact Factor: 1.813

- [18] Kullu, B. Patra, D.K. Acharya, S. Pradhan, C. Patra, H.K. (2020). AM fungi mediated bioaccumulation of hexavalent chromium in Brachiaria mutica-a mycorrhizal phytoremediation approach. *Chemosphere* 258: 127337. <u>https://doi.org/10.1016/j.chemosphere.2020.127337</u> Impact Factor (2018): 8.943
- [19] A. Panda, D.K. Patra, S. Acharya, C. Pradhan and H.K. Patra(2020). Assessment of the Phytoremediation Potential of Zinnia elegans L. plant species for hexavalent chromium through pot experiment. *Environmental Technology & Innovation* 20 (2020) 101042. Impact Factor: 7.758 <u>https://doi.org/10.1016/j.eti.2020.101042</u>
- [20] H.K. Patra, N. Pattanaik, D.K. Patra, S. Acharya and C. Pradhan (2020). Comparative Assessment of Phytoaccumulation Potential of Mustard and Wheat Grown in Nickel Contaminated Soil - A Phytoremediation Approach. *Pollution research.* 39 (04): 1140–1147. Scopus indexed; EM international, Indian Publications.
- [21] D.K. Patra, S. Acharya, C. Pradhanand H.K. Patra (2020). Chelator application improves the antioxidant defense activity, chromium uptake and oil content in lemon grass grown in chromium contaminated over burden dumps of mining area. *Plant Archives*. 20 (2): 4585-4591. Scopus indexed; Indian Publications, UGC-CARE Listed
- [22] D. Jena, S. Acharya, D.K. Patra, S. Dhali and C. Pradhan (2020). Nickel (II) modulated antifungal activity against Pyricularia oryzae Cav. in Oryza sativa L.. *Plant Archives*. 20 (2): 6669-6679; Scopus indexed Indian Publications, UGC-CARE Listed
- [23] Deepak Kumar Patra, Srinivas Acharya, Chinmay Pradhan, Hemanta Kumar Patra. (2021). Poaceae plants as potential phytoremediators of heavy metals and eco-restoration in contaminated mining sites. *Environmental Technology & Innovation*, 21: 101293.IF: 7.758 <u>https://doi.org/10.1016/j.eti.2020.101293</u>

[24] Acharya S., Patra D.K., Mahalik G. and Mohapatra P.K. (2021). Quantitative ecological study of Rhizophoraceae mangroves of Bhitarkanika Wildlife Sanctuary regions of Odisha coast, India. Proceedings of the National Academy of Sciences, India Section B: Biological Sciences, 91: 897-908. https://doi.org/10.1007/s40011-021-01295-2

[25] Shilpee Dhali, **Srinivas Acharya**, Madhusmita Pradhan, Deepak Kumar Patra, Chinmay Pradhan (2022). Synergistic effect of Bacillus and Rhizobium on cytological and photosynthetic performance of Macrotyloma uniflorum (Lam.) Verdc. Grown in Cr (VI) contaminated soil. *Plant Physiology and Biochemistry*,190: 62-69. <u>https://doi.org/10.1016/j.plaphy.2022.08.027</u>

[27] **Acharya S**, Pradhan M, Mahalik G, Babu R, Parida S, Mohapatra PK (2023). Abiotic stress tolerance in mangroves with a special reference to salinity. *Plant Science Today*, 10(2): 58-66. <u>https://horizonepublishing.com/journals/index.php/PST/article/view/1925</u>.

# ArXiv Preprints:NIL

# **Refereed Conference Publications**

[26] **Acharya S.,** Chand S., Kar M. and Mohapatra P.K. (2010). A seminar proceeding entitled "Salinity induced alternations in growth and fluorescence responses of *Rhizophora apiculata* BI." in UGC-

DRS SAP sponsored national seminar on *Environmental stress impacts on plants*, (ed.) Prof. H.K. Patra, 12.03.2010, Department of Botany, Utkal University.

- [27] Acharya S. (2009). Waste Management of Pulp and Paper industry. In P.K. Mohapatra and M. Kar (eds): Proc. Natl. Sem. *Recent Trends in Management of Industrial Wastes*, P.G. Dept of Botany, Utkal University, Orissa. pp. 27-38.
- [28] Mohapatra P.K., Nayak N. and Acharya S. (2009). Integrated pest management: a novel approach for sustainable agriculture. In A.K. Mohanty (ed): Proc. Natl. Sem. *Novel approaches for Agricultural Pest Management*, U.N. College (Auto), Orissa. pp. 6-13.

### **Refereed Workshop Publications: NIL**

### Selected Unrefereed Reports:

[29] Acharya S. and Mohapatra P.K. (2013). Conservation and management strategies for the coastal heritage of Odisha: The mangroves of Bhitarkanika National park. *Suraksha kabach*. 18: 55-62.

### PROFESSIONAL ACTIVITIES AND SERVICE

Certified grade A in UGC sponsored short term course on "**Research Methodology**" by Academic Staff College, Utkal University held from 06.07.2013 to 07.07.2013.

#### Journal Reviewing: *List of Journals.*

**Reviewer:** Journal of agricultural science and technology (2020), Environmental Technology & Innovation (2022), Elsevier Publishers, Proceedings of the National Academy of Sciences, India Section B: Biological Sciences (2023) Springer Publishers.

# LIST OF ONGOING/COMPLETED PROJECTS/CONSULTANCY

NIL

# INTERNS / M.Sc. CANDIDATE MENTORED

- 1. Swain Manasmita (2014). *Biochemical responses of Rhizophora apiculata Blume to salt stress.* A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Prof. P. K. Mohapatra, Dept. of Botany, Ravenshaw University and Mr. **Srinivas Acharya**, P.G. Department of Botany, Utkal University.
- 2. Swain Soubhagyalaxmi (2014). *Responses of Vigna mungo L. under cadmium stress*. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Dr. Chinmay Pradhan and Mr. **Srinivas Acharya**, P.G. Department of Botany, Utkal University.

- 3. Samal Anuja (2014). *Effect of Cadmium (II) on growth, photosynthetic quantum yield and biochemical changes in Phaseolus vulgaris L.* A dissertation submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Dr. Chinmay Pradhan and Mr. **Srinivas Acharya**, P.G. Department of Botany, Utkal University.
- Mohanty Anindita (2014). Noise Pollution Monitoring and Assessment: A case study on Bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Prof. P. K. Chand and Mr. Srinivas Acharya, P.G. Department of Botany, Utkal University.
- 5. Das Bijayini (2015). Phytotoxicological effects of hexavalent Chromium in Vigna radiata (L.) R. Wilczek.A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Prof. Anatha Bandhu Das and Mr. Srinivas Acharya, P.G. Department of Botany, Utkal University.
- Palai Jayashree (2015). Tolerance of some roadside plants of Bhubaneswar city, Odisha against vehicular air pollution. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Prof. Anatha Bandhu Das and Mr. Srinivas Acharya, P.G. Department of Botany, Utkal University.
- 7. Jyotishree Nath (2018). A novel approach in Waste water treatment: Type II sedimentation. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Dr. Debahuti Acharya and Dr. **Srinivas Acharya**, P.G. Department of Botany, Utkal University.
- 8. Swati Rajgopal (2018). Synthesis of a novel coagulant from Aluminium dross waste. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Dr. Debahuti Acharya and Dr. **Srinivas Acharya**, P.G. Department of Botany, Utkal University.
- Priyanka Santi (2019). Monitoring and assessment of sound pressure levels of bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Dr. Srinivas Acharya, P.G. Department of Botany, Utkal University.
- 10. Tarini Prasad Sahoo (2019). Monitoring and Assessment of Air Pollution of Bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Dr. Srinivas Acharya, P.G. Department of Botany, Utkal University.
- 11. Satyabrata Sarangi (2019). Monitoring and Characterization of Particulates of Bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Dr. Srinivas Acharya, P.G. Department of Botany, Utkal University.
- 12. Subhashree Debasmita Mishra (2019). Social Impact Assessment of Air and Noise pollution at Bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Dr. Srinivas Acharya, P.G. Department of Botany, Utkal University.
- 13. Poonam Das (2020). Trophic classification of water bodies linked to Bhubaneswar Municipal Sewerage system. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science to Department of Ecology & Environmental science, Pondicherry University, India of under the supervision of Dr. Srinivas Acharya, Department of Botany, Utkal University.
- 14. Sushobhan Priyadarshi (2020). Monitoring and characterization of bioaerosols of Bhubaneswar city. of sound pressure levels of Bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfillment of the Master of Science in Biotechnology, MITS school of biotechnology affiliated to Utkal University under the guidance of Dr. Srinivas Acharya, Department of Botany, Utkal University.

- 15. Swayamprajna Swain (2020). Monitoring and assessment of sound pressure levels of bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Dr. **Srinivas Acharya**, Department of Botany, Utkal University.
- 16. Sourav Kumar Rout (2020). Monitoring and Assessment of gaseous pollutants of Bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Dr. Srinivas Acharya, Department of Botany, Utkal University.
- 17. Biswajit Mahanta (2020). Monitoring and Characterization of Particulates of Bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfillment of the Master of Science in Environmental Science of under the guidance of Dr. **Srinivas Acharya**, Department of Botany, Utkal University.
- 18. Aliva Behera (2020). Monitoring and Assessment of tropospheric Ozone of Bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfilment of the Master of Science in Environmental Science of under the guidance of Dr. Srinivas Acharya, Department of Botany, Utkal University.
- 19. Rizwana Parween (2020). Monitoring of municipal waste water pollution of Bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfilment of the Master of Science in Environmental Science of under the guidance of Dr. **Srinivas Acharya**, Department of Botany, Utkal University.
- 20. Roja Eliza (2020). Heavy metal profiling of municipal waste water of Bhubaneswar city, Odisha. A dissertation thesis submitted for partial fulfilment of the Master of Science in Environmental Science of under the guidance of Dr. **Srinivas Acharya**, Department of Botany, Utkal University.
- 21. Trishna Das (2021). A study on bio-medical waste management in Cuttack, Bhubaneswar twin city region of Odisha, India. A dissertation thesis submitted for partial fulfilment of the Master of Science in Ecology & Environmental Science. Pondichery University of under the guidance of Dr. Srinivas Acharya, Department of Botany, Utkal University.
- 22. Swayamprabha Sashirekha (2021). Source Apportionment monitoring of ambient Air Quality in Bhubaneswar, Odisha. A dissertation thesis submitted for partial fulfilment of the Master of Science in Environmental Science of under the guidance of Dr. **Srinivas Acharya**, Department of Botany, Utkal University.
- 23. Bhagyalaxmi Khatua (2021). Noise Pollution Monitoring of Bhubaneswar capital region, Odisha. A dissertation thesis submitted for partial fulfilment of the Master of Science in Environmental Science of under the guidance of Dr. **Srinivas Acharya**, Department of Botany, Utkal University.
- 24. Laxmipriya Rout (2021). Assessment og organic pollutant load in public sewers of Bhubaneswar by Carlson's Trophic State Index. A dissertation thesis submitted for partial fulfilment of the Master of Science in Environmental Science of under the guidance of Dr. **Srinivas Acharya**, Department of Botany, Utkal University.
- 25. Abhijeet Bhatacharjee (2021). Monitoring of groundwater pollution of different dumping sites of Bhubaneswar, Odisha. A dissertation thesis submitted for partial fulfilment of the Master of Science in Environmental Science of under the guidance of Dr. **Srinivas Acharya**, Department of Botany, Utkal University.
- 26. Amit Kumar Behera (2021). Monitoring and characterisation of particulates (PM<sub>10</sub>) of Bhubaneswar city. A dissertation thesis submitted for partial fulfilment of the Master of Science in Environmental Science of under the guidance of Dr. **Srinivas Acharya**, Department of Botany, Utkal University.
- 27. Subhra Biswal (2021). Health Impact Assessment of urbanites of Bhubaneswar city exposed to Air and Noise pollution- A survey. A dissertation thesis submitted for partial fulfilment of the Master of Science in Environmental Science of under the guidance of Dr. **Srinivas Acharya**, Department of Botany, Utkal University

- 28. Alisha Munda (2021). Physico-chemical analysis of sewage systems under of Bhubaneswar Municipality Corporation, Odisha. A dissertation thesis submitted for partial fulfilment of the Master of Science in Environmental Science of under the guidance of Dr. **Srinivas Acharya**, Department of Botany, Utkal University.
- 29. SS Deepa Samal (2023). Assessment of urban sewerage system on The Gangua river with a special reference to metal pollution. A M.Sc. dissertation thesis submitted to Utkal University for partial fulfilment of M.Sc. degree in Environmental Science under the guidance of Dr. **Srinivas Acharya**, Department of Environmental Science, Phulbani Autonomous College, Phulubani.
- 30. Harapriya Mishra (2023). Impact Bhubaneswar urban sewerage discharge on oxygen demanding waste load in the Daya River. A M.Sc. dissertation thesis submitted to Utkal University for partial fulfilment of M.Sc. degree in Environmental Science under the guidance of Dr. Srinivas Acharya, Department of Environmental Science, Phulbani Autonomous College, Phulubani.
- 31. Lipsarani Dash (2023). Water Pollution Impact Assessment of the Chilika Lake, Ramsar Lake of Odisha: A downstream study of the Daya river. A M.Sc. dissertation thesis submitted to Utkal University for partial fulfilment of M.Sc. degree in Environmental Science under the guidance of Dr. Srinivas Acharya, Department of Environmental Science, Phulbani Autonomous College, Phulubani.

# ANY OTHER INFORMATION:

Refresher Courses/ Training Programmes/Workshops attended:

- 1. Participated in Winter School 2012-13, a five day workshop on "Statistical Data Analysis" by Applied Statistics Unit of the Indian Statistical Institute, Kolkata, 21-25 January, 2013.
- 2. Participated in the <u>UGC Sponsored workshop for Research Scholars in Science Faculties</u> on "Instrumentation and Statistical Methods in Scientific Research" from 9-14<sup>th</sup> November, 2009.
- Participated in training-cum-workshop on "Solid Waste Management" <u>sponsored by Department of Environment & Forest, Govt. of India</u> under NEAC, held at Department of Botany, Utkal University on 12<sup>th</sup> June, 2006.
- 4. Qualified DOEACC A Level (Advanced PG Diploma), DOEACC society, New Delhi in Computer Application in 2009.