Dr. S. Anusuya
Assistant Professor

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Date of Birth: 15/01/1985

Educational Qualification:

Ph.D., Plant Science- Bharathidasan University, Tiruchirappalli (Nov 2015-Highly Recommended)

M.Phil., Biotechnology (80%) - Bharathidasan University, Tiruchirappalli (Mar 2009)

M.Sc., Plant Science (87%) - Bharathiar university, Coimbatore (Apr 2007)

B.Sc., Botany (91%) - Bharathidasan University, Tiruchirappalli (Apr 2005)

QUALIFIED TNSET 2017

Awards:

- ✓ University **FIRST** rank- B.Sc., Botany, Bharathidasan University, Tiruchirappalli.
- ✓ University **SECOND** rank- M.Sc., Plant Science, Bharathiar University, Coimbatore.
- ✓ **Post-Graduate Merit Scholarship for University Rank holders** (2005-2007)
- ✓ Sri Nirupa memorial gold medal for proficiency in Botany during 2004-05
- ✓ Sri Nirupa memorial gold medal for best out gone during 2004-05.
- ✓ Gold medal for proficiency in Tamil during 2004-05.

Teaching & Research Experience

- ➢ Assistant Professor in Department of Botany, St. Joseph's College, Tiruchirappalli (19/06/2018 to till date)
- ➢ Principal Investigator, **SERB-National Post Doctoral Fellow**(DST) in Department of Botany, Bharathiar University, Coimbatore (10/04/2017 to 30/11/2017).
- ➢ Assistant Professor in Department of Botany, Bishop Heber College, Tiruchirappalli (10/07/2015 to 31/03/2017).
- ➢ Project fellow in TNSCST project entitled "An Ecofriendly approach to control rhizome rot of turmeric" at Dept. of Plant Science, Bharathidasan University, Tiruchirappalli (01/06/2012- 31/05/2014).

Areas of Research: Molecular Plant Pathology, Nanotechnology

Publications

1. Parthasarathy R, Jayabaskaran C, Manikandan A, **Anusuya S**. Synthesis of Nickel-Chitosan Nanoparticles for Controlling Blast Diseases in Asian Rice. Applied Biochemistry and Biotechnology (2022) https://doi.org/10.1007/s12010-022-04198-8. **Impact Factor: 3.1**
2. Sathiyabama M, **Anusuya S**. Enhanced growth, yield and phytoconstituents in turmeric (Curcuma longa L.) plants treated with β-D-Glucan nanoparticle under glass house condition. African Journal of Agronomy (2021). 9(2), 001-005.
3. Kilimas Rajan, Ananthakumar Archana and **Sathiyanarayanan Anusuya**. Larvicidal potential of certain plant extracts of the family Lamiaceae against *Anopheles subpictus* (Diptera: Culicidae). International Journal of Mosquito Research 8(6) (2021) 35-42.
4. **Anusuya S**. Chitin Derived Bionanoparticles Evoke Defense Responses in Chickpea: a Cost-effective Strategy for Sustainable Chickpea Production. Bionanoscience (2021) 1-12.
5. Manikandan A, Parthasarathy R, **Anusuya S**, Jianying H. An overview of plant defense-related enzymes responses to biotic stresses. Plant Gene 27 (2021) 100302. **Impact Factor- 2.7**
6. Sirumbayee E, **Anusuya S**. Preparation of Zinc Oxide Nanoparticles using *Azima tetracantha* Lam. Leaf Extract and Its Potential for the Removal of Contaminants from Water. J. Nanosci. Tech. (2020), 862-865.
7. Haripriya P, Stella PM, **Anusuya S**. Foliar Spray of Zinc Oxide Nanoparticles Improves Salt Tolerance in Finger Millet Crops under Glasshouse Condition. SCIOL Biotechnol (2018), 20-29.
8. **S. Anusuya**, K. Nibiya Banu. Silver-chitosan nanoparticles induced biochemical variations of chickpea (*Cicer arietinum* L.). Biocatalysis and Agricultural Biotechnology. 8 (2016) 39-44.
9. M. Sathiyabama, Nirit Bernstein, **S. Anusuya**. Chitosan elicitation for increased curcumin production and stimulation of defence response in turmeric (*Curcuma longa* L.). Ind. Crops and Products. 89 (2016) 87–94. **Impact Factor- 6.5**
10. **Anusuya, S**. & Sathiyabama, M. 2016. Effect of chitosan on growth, yield and curcumin content in turmeric under field condition. Biocatalysis and Agricultural Biotechnology. 6: 102-106.
11. **Anusuya, S**. & Sathiyabama, M. 2015. Induced Chitinase and Chitosanase Activities in Turmeric Plants by Application of β-D-Glucan Nanoparticles. Notulae Scientia Biologicae, 7: 295- 298.
12. **S. Anusuya** & M. Sathiyabama, Protection of turmeric plants from rhizome rot disease under field conditions by β-D-glucan nanoparticle. International Journal of Biological Macromolecules 77 (2015) 9-14. **Impact Factor-8.025**

13. **S. Anusuya** & M. Sathiyabama, Effect of β-glucan nanoparticle pre-treatment in inducing resistance against *Pythium aphanidermatum* infection in *Curcuma longa* (L.). Int. J. Biol. Macromolecules 74 (2015) 278-282. **Impact Factor-8.025**
14. **S. Anusuya** & M. Sathiyabama, Foliar application of β-D-glucan nanoparticles to control rhizome rotdisease of turmeric. Int. J. Biol. Macromolecules 72 (2015) 1205–1212. **Impact Factor-8.025**
15. **S. Anusuya** & M. Sathiyabama, Preparation of β-D-glucan nanoparticles and its antifungal activity. Int. J. Biol. Macromol. 70 (2014) 440–443. **Impact Factor-8.025**
16. **S. Anusuya** & M. Sathiyabama, 2014. Application of nano-glucan to turmeric rhizome induce defence response against *Pythium aphanidermatum*. Archives of Phytopathology and Plant Protection, http://dx.doi.org/10.1080/03235408.
17. **S. Anusuya** & M. Sathiyabama, 2014. Effect of Chitosan on Rhizome Rot Disease of Turmeric Caused by *Pythium aphanidermatum.* ISRN Biotechnology,http://dx.doi.org/10.1155/2014/305349.
18. **S. Anusuya** & M. Sathiyabama, 2013. Identification of defence proteins from the seed exudates of *Cicer arietinum* L. and its effect on the growth of *Fusarium oxysporum* f.sp. *ciceri*. Archives of Phytopathology and Plant Protection, http://dx.doi.org/10.1080/03235408.
19. Anusuya N, **Anusuya S**, Manian R, Siddhuraju P, Manian S. Antioxidant and free radical scavenging activity of certain dietary and medicinal plant extracts. Food. 2009; 3: 47-52.

Cumulative Impact Factor: 44.4; Total Citations: 370 since 2018; h- index: 11; i10-index: 11

Book chapters:

1. R. Koshila Ravi, **S. Anusuya**, M. Balachandar, T. Muthukumar. Microbial interactions in soil formation and nutrient cycling. Springer Nature, 2019: A. Varma, D. K. Choudhary (eds.), *Mycorrhizosphere and Pedogenesis*,https://doi.org/10.1007/978-981-13-6480-8_21
2. R. Koshila Ravi, **S. Anusuya**, M. Balachandar, T. Muthukumar. Influence of xenobiotics on the mycorhizosphere. Springer Nature 2019: A. Varma, D. K. Choudhary (eds.), *Mycorrhizosphere and Pedogenesis*,https://doi.org/10.1007/978-981-13-6480-8_7

Conferences/Seminars

- Organized an International Virtual Conference on "**Frontiers in Biological Research"** (15-21st February 2021) at St. Joseph's College, Tiruchirappalli in association with The Biomics, Bangalore.
- Poster presented in International Conference on "**Sustainable management and Conservation of natural resources**" sponsored by National Biodiversity Authority-India (15.02. 2020).
- Organized One day workshop on Electrophoresis (DBT-STAR Scheme), St. Joseph's College, Tiruchirappalli (07.02.2020).
- Participated in International conference on "**Cancer inferno and its prevention strategies**" organized by PG Department of Biochemistry, Periyar EVR college, Trichy (22.02.2019).
- Participated in International conference on "**Potential impact of pesticides on environment and human health**" organized by Department of Chemistry, Dayananda Sagar University, Bengaluru (November 2nd-4th, 2017).
- Presented poster entitled "**Zinc oxide nanoparticles promotes the growth of ragi (*Eleusine coracana* (L.) Gaertn.) Seedlings under salt stress**" in 10th NABS National conference on Recent trends in Life Sciences: Research, Practices and Application for sustainable development, Bharathiar University, Coimbatore (7-8 September, 2017).
- Participated in Indo-French Seminar on "**Women in Science**" through CEFIPRA in Indian Institute of Science Bangalore, India (3-5 Feb 2015).
- Won third place in oral presentation entitled "**Chitosan induced disease resistance in *Curcuma longa* L. against rhizome rot**" in National conference on Agricultural Biotechnologies for sustainable food security, Pudukkottai, TamilNadu (22 - 24 March 2013).
- Presented Poster entitled "**Application of chitosan to turmeric plants induce defense enzymes, plant growth and control rhizome rot disease under field condition**" in National symposium on pathogenomics for diagnosis and management of plant diseases, CTCRI, Thiruvananthapuram (24-25 October, 2013).

Resource person:

1. Knowledge Enrichment Programe on "Climate change and Sustainability" at Srimad Andavar Arts & Science College, Trichy on 01.03.2023.
2. "Nanotechnology in Plant pathology" in Summer Training Program In Biology organized by Bharathiar University, Coimbatore organized & The Academy of Sciences, Chennai-July 23-August 6, 2022.

3. Talk on “Impact of Climate change on Biodiversity” on 07.06.2022- Vimala College, Thrissur, Kerala
4. External Expert- Project Proposal in Life Sciences (Bishop Heber College, Trichy) on 12.11.2021.
5. Chairperson in Student Conclave- Science through Inquiry and Research (STIR) by United Board for Christian Higher Eductaion in Asia- 28.06.2021
6. One day Lecture workshop on Bioproducts- Srimad Andavan College of Arts and Science, Trichy- 21.03.2019

Academic Bodies:

- Board of Studies- Member- Department of Botany, Holy Cross College, Trichy (from 2021-till date)

Reviewer in Journals:

- ✓ Natural Product Research (Springer)
- ✓ Bionanoscience (Springer)
- ✓ Appled Biochemistry and Biotechnology (Springer)
- ✓ Colloids and Surfaces A: Physicochemical and Engineering Aspects (Elsevier)
- ✓ Ecotoxicology and Environmental Safety (Elsevier)
- ✓ Biocatalysis and Agricultural Biotechnology (Elsevier)
- ✓ Current Plant Biology (Elsevier)
- ✓ Pesticide Biochemistry and Physiology (Elsevier)
- ✓ Asian Journal of Agriculture
- ✓ Nusantara Bioscience