

BIO-DATA

- 1. Name and full correspondence address :** Dr. Chitra N.
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AINP on Soil Biodiversity- Biofertilizers,
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College of Agriculture, Vellayani,
Thiruvananthapuram, Kerala.
- 2. Email(s) and contact number(s) :** chitra.n@kau.in
9400329295
- 3. Institution :** Kerala Agricultural University
- 4. Date of Birth :** 22-04-1978
- 5. Gender (M/F/T) :** Female
- 6. Academic Qualification (Undergraduate Onwards)**

	Degree	Year	Subject	University/Institution	OGPA
1.	BSc. Agriculture	2001	Agriculture	Kerala Agricultural University	8.90
2.	MSc. Agriculture	2005	Agricultural Microbiology	University of Agricultural Sciences, Bangalore	9.38
3.	PhD	2010	Microbiology	Indian Agricultural Research Institute, New Delhi	8.34

7. Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award.

Title: Cloning, sequencing and characterization of gene(s) coding for biocidal property from *Calothrix elenkinii*

Guide : Dr. Radha Prasanna

Institution: Indian Agricultural Research Institute, New Delhi

Year of Award: 2010

8. M.Sc. thesis title, Guide's name, Institute/Organization/University, Year of Award.

Title: Selection of an efficient arbuscular mycorrhizal fungus (AMF) and plant growth promoting rhizo-microorganism (PGPRM) for *Stevia rebaudiana* Bertoni.

Guide : Dr. A. N. Balakrishna

Institution: University of Agricultural Sciences, Bangalore.

Year of Award: 2005

9. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received

S.No	Name of Award	Awarding Agency	Year
1.	Junior Research Fellowship	ICAR	2002
2.	Senior Research Fellowship	IARI	2007

10. Projects

Working as Assistant Professor in AINP on Soil Biodiversity-Biofertilizers entitled 'Integration of Biofertilizer Technology with the Farming Practices of Tribal Farmers of Attappady' from 08-03-2019.

Co-ordinator and Principal Investigator of Network project on conservation and utilization of native cyanobacteria from Kerala

Principal Investigator of Revolving Fund – Biotech Keralam Scheme

11. Publications

Research Articles

1. Koshy, N.G., Rajan, S.A., Anith, K.N., Chitra, N., Soumya, V.I., Scaria, T.M. and Beena, R., 2025. Beyond the pink: uncovering the secrets of pink pigmented facultative methylotrophs. *Archives of Microbiology*, 207(4), p.80.
2. Lal, A., Sailajakumari M.S., Rani, B., **Chitra N.**, and Aparna B 2024. Advanced Vermicomposting Modality: Microbial Acceleration to Improve Micronutrient Profile of Agricultural Residue Derived Compost. *Intl. J. Plant & Soil Sci.* 36(9):556-563.
3. Mathew, E., Sudha, B., Pillai, S., John, J. and **Chitra, N.**, 2024. Growth and yield response of different cowpea (*Vigna unguiculata* (L.) Walp.) varieties under varying phosphorus management. *Journal of Tropical Agriculture*, 62(1), pp.136-144.
4. Aiswarya B. N., Anu Rajan S., **Chitra N.**, Soumya V.I., Anith K.N. and Rachanamol R.S. 2024. Abiotic Stress Tolerant Pink Pigmented Facultative Methyloprophs (PPFMS) Promote Plant Growth. *Biological Forum – An International Journal* 16(6): 58-63.
5. Anju, A. B., **Chitra Natarajan**, R. Preetha, S. Anu Rajan, V. I. Soumya, and K. N. Anith. 2023. Bacterization with endospore-forming *Bacillus* spp. promotes plant growth and suppresses foot rot disease in black pepper (*Piper nigrum* L.) in the nursery. *Journal of Pure & Applied Microbiology*. 17(2). doi: 10.22207/JPAM.17.2.02
6. Anith, K.N., Nysanth, N.S. and **Natarajan, C.**, 2021. Novel and rapid agar plate methods for *in vitro* assessment of bacterial biocontrol isolates' antagonism against multiple fungal phytopathogens. *Letters in Applied Microbiology*, 73(2): 229-236.
7. Resmi A.R., Lovely B., Jayapal A., Suja, G. and **Chitra N.** 2020. Effect of inoculation of plant growth promoting rhizobacteria (PGPR) Mix I formulations on plant growth, yield, disease incidence and disease severity of *Rhizoctonia* leaf blight of Amaranthus (*Amaranthus tricolor* L.) *Indian J. Agri. Res.* **DOI: 10.18805/IJARE.A-5684**
8. **Chitra N.**, Vishal G., Kanika K. and Prasanna R. 2013. Molecular characterization of fungicidal endoglucanase *Calothrix elenkinii*. *Biochem. Genet.* 51 (9-10): 766-779. (NAAS 7.5)
9. **Chitra N.**, Prasanna R., Vishal G., Dureja P. and Nain. L. 2012. Characterization of fungicidal activity of *Calothrix elenkinii* using chemical methods and microscopy. *App. Biochem. Microbiol.*, 48 (1): 51-57. (SRJ 0.707)
10. Vishal G., **Chitra N.**, Kanika K. and Prasanna R. 2011. Identification and characterization of endoglucanases for fungicidal activity in *Anabaena laxa* (Cyanobacteria). *Journal Appl. Phycol.*, 23 (1): 73-81. (NAAS 8.62)
11. Prasanna R., Anjali S., Jaiswal P., Nayak S., Vishal G., Chaudary V., Monica J. and **Chitra N.** 2010. Rediscovering cyanobacteria as a valuable source of bioactive compounds. *App. Biochem. Microbiol.*, 46 (2): 119-134. (SRJ 0.707)
12. Prasanna R., Vishal G., **Chitra N.** and Chaudhary V. 2010. Bioprospecting of genes involved in the production of chitosanase and microcystin-like compounds *Anabaena* stains. *World Journal Microbiol. Biotechnol.* 26(4): 717–724. (NAAS 7.66)
13. Vishal G., Prasanna R., **Chitra N.**, Srivastava A. K. and Sharma. J. 2010. Identification, characterization and regulation of a novel chitosanase gene (cho) in *Anabaena* spp. *Appl. Environ. Microbiol.* 76 (9): 2769-2777. (NAAS 9.81)

14. Chaudhary V., Prasanna R., Vishal G., Singh S. B., **Chitra N.** and Nain L.. 2010. Development of microtiter plate - based assay for evaluation of fungicidal potential of cyanobacterial metabolites. *Arch. Phytopathology and Plant Protect.*, 43 (14): 1435 – 1444.
15. **Chitra N.** and Balakrishna A. N. 2007. Interaction between Arbuscular Mycorrhizal Fungus *Glomus macrocarpum* and different plant growth promoting rhizomicroorganisms in *Stevia rebaudiana* Bertoni. *J. Soil Biol Ecol.*, 27 (1&2): 62-68 (NAAS 3.43)
16. **Chitra N.** and Balakrishna A. N. 2006. Response of *Stevia rebaudiana* to different Arbuscular Mycorrhizal Fungi. *J. Soil Biol Ecol.*, 26 (1&2): 104-108 (NAAS 3.43)

Books/Reports/Chapters/General articles etc.

1. A.B. Anju, K. N. Anith, N. Chitra, S. Anu Rajan and V. I. Soumya. 2022. Endospore forming *Bacillus* spp. as growth promoter in black pepper cuttings. Prof. Suhara Beevy S., Dr. Mariamma Cherian, Dr. Darsan B. Menon, Dr. Anil Kumar T. R., Dr. Mini V.S. (Eds). *Trends in Advanced Biology*. Published by University of Kerala, Kariavattom, Thiruvananthapuram. p.1-6.
2. N. Sruthi Suresh, N. Chitra, S. Anu Rajan, V. I. Soumya and K. N. Anith. 2022. Diversity of exopolysaccharide producing bacteria from soil-based insect nesting structures. Prof. Suhara Beevy S., Dr. Mariamma Cherian, Dr. Darsan B. Menon, Dr. Anil Kumar T. R., Dr. Mini V.S. (Eds). *Trends in Advanced Biology*. Published by University of Kerala, Kariavattom, Thiruvananthapuram. p.175-182.
3. Chitra N., Bindhu R. Raj, Subha P., Anu Rajan S., Soumya V.I., Anith K.N. and Mohanty S.R. 2022. Plant growth promoting potential of nitrogen fixing bacteria from Attappady Hill tract of Kerala. Prof. Suhara Beevy S., Dr. Mariamma Cherian, Dr. Darsan B. Menon, Dr. Anil Kumar T. R., Dr. Mini V.S. (Eds). *Trends in Advanced Biology*. Published by University of Kerala, Kariavattom, Thiruvananthapuram. p.407.
4. Radha Prasanna, Monica Joshi, Vishal Gupta, Chitra Natarajan and Vidhi Chaudhary. (2009) Diversity analyses of cyanobacteria using polyphasic approaches – phenotyping, biochemical aspects and molecular tools. In: Prasanna R., Lata, Saxena A. K. And Dhar D. W. (eds) Bioprospecting microbes for agriculture pp 238-250. Division of Agricultural Microbiology, Indian Agricultural Research Institute, New Delhi. (ISBN 978-81-88707-52-9)
5. Sugitha T.K.C., Anil Saxena, Vishal Gupta, Chitra Natarajan and Radha Prasanna (2009) Metagenomic library construction and cloning. In: Prasanna R., Lata, Saxena A. K. And Dhar D. W. (eds) Bioprospecting microbes for agriculture pp 299-301. Division of Agricultural Microbiology, Indian Agricultural Research Institute, New Delhi. (ISBN 978-81-88707-52-9)
6. Sugitha T.K.C., Anil Saxena, Vishal Gupta, Chitra Natarajan and Radha Prasanna (2009) Allele mining in soil metagenome. In: Prasanna R., Lata, Saxena A. K. And Dhar D. W. (eds) Bioprospecting microbes for agriculture pp 302-304. Division of Agricultural Microbiology, Indian Agricultural Research Institute, New Delhi. (ISBN 978-81-88707-52-9)
7. Nysanth N.S., Chitra N. and Meenakumari K.S. (2019) ‘*Jaivamalinya samskaranathinu inoculum.*’ *Krishi Jagaran*, July issue 3(7):16-17.
8. Chitra N. and Meenakumari K.S. (2020) ‘*Roganiyanthranathinu mithrasookshmaanukkal.*’ *Kerala Karshakan* September issue 66(1): 28-32.
9. Berin P., Smith M.S., Radhika N.S., Chitra N. Reshmi V. (2021) ‘*Sookshma jeevikal: Krishi yidathil kaavalal.*’ *Kalpadhenu*, Oct -Dec issue 41(1): 41-45.

10. Technical Bulletin: Anith K. N., Chitra N., Meenakumari K. S., Nyshanth N. S., Kumar A. S., Subha P., Vigi S., Bindu R., Ajith R. P., and Mohanty S. R. 2021. Biofertilizer technology for vegetables. p 16.

Student Guidance (Major Advisor)

M. Sc.

Within KAU: Completed: 4 Ongoing: 2

Outside KAU: Completed: 3

Ph. D

Within KAU: On going: 3

Other Institutional Responsibilities

1. Currently acting as student Advisor/faculty mentor to ten BSc. Agriculture students and ten BTech Biotechnology students.
2. Technical cell member, College of Agriculture, Vellayani

Membership in Professional Associations

1. Life time member of ASIAN PGPR society.
2. Life time member of Association of Microbiologists of India