CURRICULUM VITAE

- **Name**: Dr. Ganesh Chandrakant Nikalje
- **Position**: Assistant Professor (Senior Scale) in Botany
- **Affiliation**: Seva Sadan's R. K. Talreja College of Arts, Science and Commerce, Affiliated to University of Mumbai, Ulhasnagar-3, MS, India. Date of joining: **5th June, 2017**.
- **Mailing address**: Post Graduate Department of Botany, Seva Sadan's, R. K. Talreja College of Arts, Science, and Commerce, Ulhasnagar- 421003
    - **Mobile**: +91 9969462817
    - **Email**: ganesh.rkt5@gmail.com/g.nikalje@ssrkt.edu.in
- **Date of Birth**: 20th November, 1989
- **ORCID iD**: 0000-0002-0140-2365
- **Educational qualification**

Sr no	Degree/Class	University/Board	Year	Subject/ Specialization	Percentage/ Division
1	Post Doctorate	Gyeongsang National University, South Korea (SERB-SIRE scheme)	2023-24	Plant Biotechnology	-
2	Ph.D.	Savitribai Phule Pune University, Pune & Bhabha Atomic Research Centre, Mumbai	2018	Botany (Plant Biotechnology)	-
3	M.Sc.	Savitribai Phule Pune University, Pune	2012	Botany (Pharmacognosy)	56.1/ B
4	B.Sc.	Savitribai Phule Pune University, Pune	2010	Botany	84.08/ Distinction
5	XIIth	Kolhapur	2007	Phy., Chem., Bio., Eng., Horti.	72.17/First
	Xth	Kolhapur	2005	Mar., Hin., Eng., Maths, Sci., Soc. Sci.	68.53/First

- **Other qualifications**
    - National Eligibility Test (NET-ICAR): 2017
    - State Eligibility Test (SET): 2015
    - Graduate Aptitude Test in Engineering (GATE): 2012

- **Work Experience**
    - **Gene Expression Laboratory, Plant Molecular Biology, and Biotechnology Research Centre, Gyeongsang National University**, **Jinju**, **South Korea** as **Post-Doctoral Research Fellow** under SERB-SIRE-2022-2023 Scheme from 29th September 2022 to 27th March 2023.
    - Seva Sadan's **R. K. Talreja College** of Arts, Science, and Commerce, Ulhasnagar-421003 from 5th June 2017 till date as Assistant Professor. Basic Pay: 73100/- Academic level: 11.
    - Department of Plant Molecular Biology, the **University of Delhi South Campus**, New Delhi. June 2016- February 2017 as a Research Student.
    - Nuclear Agriculture and Biotechnology Division, **Bhabha Atomic Research Centre**, Mumbai. From January 2012 to January 2018 as Ph.D. Student.
    - Department of Botany, **Savitribai Phule Pune University**, Pune- 411007. From October 2012 to January 2018 as Ph.D. Student.
- **Research Projects**:
    - SERB- International Research Experience (SIRE), Funded by Science and Engineering Board, Government of India. Title: **Functional Analysis of Interacting Partners of CONSTANS, a Key Regulator in Controlling ROS Homeostasis under Salt Stress**. For the year 2022-23. File no- SIR/2022/000391. Sanctioned amount- 16,05,687/-
    - Minor Research Project (PI), University of Mumbai, Mumbai- 400032, March 2019. Title: **"LC-MS based metabolic profiling of *Avicennia officinalis* L. and *Sonneratia apetala* L. for identification of bioactive compounds"** for the year 2018-19. **Completed**. 16th March, 2019.
    - Minor Research Project (Co-PI), University of Mumbai- 400032, March 2020. Title: "**Identification of Allelochemicals from *Ocimum* sp and their impact on plants"** for the year 2019-20**. Completed.**
- **Ph.D. Thesis (June 2013 to January 2018)**
    - **Supervisors:** Prof. (Dr.) T.D. Nikam, Savitribai Phule Pune University and Prof. (Dr.) P. Suprasanna, Bhabha Atomic Research Centre, Mumbai, India.

- **Thesis title:** "**Studies on molecular and metabolomic responses to salt stress inthe halophyte: *Sesuvium portulacastrum* L.**"

- **Masters' Dissertation (December 2011 to May 2012)**

  Supervisor: Prof**. (**Dr.) Nutan Malpathak, Former Head, Department of Botany,Savitribai Phule Pune University, Pune- 411 007.

  Project title: "**Pharmacognostic study of *Gymnema sylvestre (Retz) R. Br. ex.Sm*"**

Laboratory technical skills

- **Pharmacognosy-** Plant preservation, Metabolite extraction, Phytochemical analysis, Proximate analysis, bioactivities of plant extract, purification of metabolites using chromatographic techniques- column chromatography, preparative chromatography etc.
- **Biotechnology-** Culturing of *Agrobacterium*, *E. coli*, Yeats, Arabidopsis etc Induction of hairy roots, Colony PCR, PCR, qPCR, Yeast Two Hybridization Assays, Gene transformation in yeast, bacteria, plants, Gene cloning, Protein purification and Kinase assays, Physiological and Biochemical assays, *in silico* analysis of genes/proteins, Primerdesigning, analysis of transcriptomics data.
- **Analytical instruments-** GC-MS, LC-MS, NMR, FT-IR, UV-vis Spectrophotometer, Soxhlet apparatus, Western blotting etc.

List of significant publications (Total citations: 2002; h-index: 19, i10 index: 28 on 03.08.20245as per google scholar citations)

A) Journal Articles (Total Impact Factor: 62.7; *Corresponding author)

1. Salunke TR, Sontakke OP, Chavan SC, Bhosale KS, Wayase UR, Barmukh RB, Ahire ML, Shelar PV, Nikalje GC and Mankar GD (2025) Microbial modulation of plant epigenetics: the role of miRNA and lncRNA in enhancing salt tolerance. Discover Plants, 2(1), pp.1-38. (**Springer)** ISSN 3005-1207

2. Shelke D, Nikalje G, Bhusare B, Zaware B, Suprasanna P, Nikam T (2025) Biochemical and physiological responses of contrasting soybean genotypes to individual (Na^+, Cl^-) and additive (NaCl) salts. Vegetos. 26: 1-4. (**Springer**)

ISSN
2229-4473.

3. Kushwaha V, Patil JR, **Nikalje GC***, Yadav LS (2025) Exploration of Mangrove Endophytes as Novel Sources of Tannase Producing Fungi. Journal of Fungi, 11(5): p.366. https://doi.org/10.3390/jof11050366. (**MDPI IF: 4.2**). ISSN 2309-608X

4. Patil JR, Mhatre KJ, Yadav K, Yadav LS, Srivastava S, **Nikalje GC*** (2024) Flavonoids in plant-environment interactions and stress responses. Discover Plants, 1(1): 1-19. DOI: 10.1007/s44372-024-00063-6. (**Springer**, Citations: 19). ISSN 3005-1207.

5. Shelar PV, Mankar GD, Sontakke OP, Wayase UR, Bhosale KS, **Nikalje GC**, Ahire ML, Nikam TD, Barmukh, RB (2024) A Review of the Physio-Biochemical and Molecular Mechanisms of Salt Tolerance in Crop. Current Agriculture Research Journal, 12 (2). **DOI :** http://dx.doi.org/10.12944/CARJ.12.2.05 ISSN no: 2321-9971

6. **Nikalje GC**, Suprasanna P (2024) *Sesuvium portulacastrum* CABI Compendium (Invasive species). doi: 10.1079/cabicompendium.117112

7. Yadav K, **Nikalje GC***. 2024. Comprehensive analysis of bioplastics: life cycle assessment, waste management, biodiversity impact, and sustainable mitigation strategies. *PeerJ* 12:e18013 https://doi.org/10.7717/peerj.18013 **(IF 2.7)** ISSN 2167-8359.

8. **Nikalje GC***, Srivastava AK, Shelake AM, Kadam US, Hong JC, Kim JY, Nikam TD,Suprasanna P (2023) Profiling of conserved orthologs and miRNAs for understanding their role in salt tolerance mechanism of *Sesuvium portulacastrum* L. Mol Bio Rep 50:9731–9738. DOI: 10.1007/s11033-023-08892-6. **(Springer IF: 2.8)** ISSN 0301-4851.

9. **Nikalje GC***, Rajput VD, Ntatsi G (2023) Editorial: Putting wild vegetables to work forsustainable agriculture and food security. **Front Plant Sci**, 14, 1268231. DOI: 10.3389/fpls.2023.1268231. (**IF: 5.6**). ISSN no: 1664-462X.

10. Yadav K, **Nikalje GC,** Pramanik D, Suprasanna P, Rai MP (2023) Screening of

the Most Effective Media for Bioprospecting Three Indigenous Freshwater Microalgae

Species. **Int. J. Plant Biol**. *14*, 558-570. (**MDPI, Citation: 02)** ISSN- 2037-0164.

11. Yadav K, Kumar S, **Nikalje GC***, Rai MP (2023) Combinatorial Effect of Multiple Variables on Carotenoids and Lipids Up-Regulation in *Monoraphidium* sp. for Pharmacological and Nutraceutical Applications. **Appl. Sci**. 2023, *13*(10), 6107; DOI: 10.3390/app13106107. (**MDPI IF: 2.838, Citation: 03)**. ISSN 2076-3417.
12. Shelke DB, Chambhare MR, **Nikalje GC***, Nikam TD (2023) Improvement of Soybean Crop for Yield, Stress Tolerance, and Value-Added Products Using a Transgenic Approach, **Advances in Agriculture**, vol. 2023, Article ID 8166928. DOI: 10.1155/2023/8166928. ISSN- 2356654X
13. Ghuge S[#], **Nikalje GC**[#], Kadam US, Suprasanna P, Hong JC (2023) Comprehensive mechanism of heavy metal toxicity in plants, detoxification, and remediation. **J Hazard Mater** 450:131039. DOI: 10.1016/j.jhazmat.2023.131039. (**Elsevier IF: 14.227, Citations: 41**). (#Equal contribution). ISSN 0304-3894
14. ***Nikalje GC,** Srivastava M, Nikam TD, Suprasanna P (2022) Physiological responses and tolerance of halophyte *Sesuvium portulacastrum* L. to Cesium. **Advances in Agriculture** Volume 2022, Article ID 9863002 pp 1-7 (**Wiley** Citations: **04**). ISSN- 2356654X
15. Saini N, ***Nikalje GC**, Zargar S, Suprasanna P (2021) Molecular insights into sensing, regulation and improving heat tolerance in plants. **Plant Cell Reports** 41(3):799-813. (**Springer IF: 4.57; Citations: 15**). ISSN- 07217714.
16. Sonawane HB, Ghule S, Math S, Shelke D, **Nikalje GC** (2021) *Rhizoctonia bataticola*: From plant pathogen to a potential source of pharmaceutically relevant metabolites.**Current Research in Green and Sustainable Chemistry** 4: 100171 **(Elsevier, Citations:04)**. ISSN 2666-0865
17. ***Nikalje GC,** Zimare SB, Shelke DB (2021) Effect of elicitors on plant cell suspension culture for the enhancement of secondary metabolite production. **N J Pharma Sci** 1(1): 50-57. **(Citation: 01).**
18. ***Nikalje GC**, Rajam P (2021) Wi-Fi Radiation Negatively Influences Plant Growth and Biochemical Responses of *Capsicum Annuum* L var. Pusa Jwala.

Current Chemical Biology 15(2): 182-187. DOI: 10.2174/2212796814999201228193703 **(Bentham and Science). ISSN no: 2212-7968**

19. Dhakane R, Deshpande A, Shinde A…,**Nikalje GC**, Jogdand A (2020) Identification And Confirmation of Unknown Meat Using Mictochondrial Cytochrome C Oxydase I (Co-I) Marker in DNA Barcoding Technology. **European Journal of Molecular & Clinical Medicine**, 7 (11): 8153-8172.
20. Sonawane HB, Borde MY, **Nikalje GC**, Terkar A, Math SK (2020) HR-LC-MS based metabolic profiling of *Fusarium solani* a fungal endophyte associated with *Avicennia officinalis*. Current Research in Environmental & Applied Mycology (**Journal of FungalBiology**) 10(1): 262–273 (**Citations: 05).** ISSN no 22292225.
21. ***Nikalje GC**, Kumar J, Nikam TD, Suprasanna P (2019) FT-IR profiling reveals differential response of roots and leaves to salt stress in a halophyte *Sesuvium portulacastrum* (L.) L. **Biotech. Rep**. 23: e00352. **(Elsevier, Citations: 31).** ISSN 2215- 017X.
22. Shelke DB, **Nikalje GC,** Chambhare MR, Zaware BN, Suprasanna P, Nikam TD (2019) Na^+ and Cl^- induce differential physiological, biochemical responses and metabolite modulations in vitro in contrasting salt-tolerant soybean genotypes. **3Biotech** 9:91 **(IF: 2.893 Springer; Citations: 30)**. ISSN 2190-5738
23. **Nikalje GC** and Suprasanna P (2018) Coping with metal toxicity – cues from halophytes.**Front. Plant Sci**. 9:777. DOI: 10.3389/fpls.2018.00777. **(IF: 5.753; Citations: 101).** ISSN 1664462X
24. **Nikalje GC,** Srivastava AK, Sablok G, Pandey GK, Nikam TD, Suprasanna P (2018) Identification and validation of *Sesuvium portulacastrum* reference genes for quantitative real-time PCR normalization under salt treatment. **Plant Gene**. 13:18-24. **(Elsevier,Citations: 10).** ISSN 2352-4073.
25. **Nikalje GC**, Variyar PS, Joshi MV, Nikam TD, Suprasanna P (2018) Temporal and SpatialChanges in Ion homeostasis and accumulation of flavonoids and glycolipid in a halophyte*Sesuvium portulacastrum* (L.) L. **Plos One** 13(4): e0193394. DOI: 10.1371/journal.pone.0193394. **(IF: 3.24; Citations: 35)**. ISSN 1932-6203.
26. **Nikalje GC**, Srivastava AK, Pandey GK, Suprasanna P (2018) Halophytes in Biosaline Agriculture: mechanism, utilization and value-added products. **Land**

Degradation and Development 29 (4): 1081-1095. DOI: 10.1002/ldr.2819 **(Wiley, IF: 4.977; Citations:**

137). ISSN 1099145X.

27. **Nikalje GC**, Nikam TD, Suprasanna P (2017) Looking at Halophytic Adaptation to HighSalinity through Genomics Landscape, *Current Genomics*, 18(6): 542 - 552 **(Bentham andScience, IF: 2.63; Citations: 51)**. ISSN 13892029.
28. Shelke DB, Padey M, **Nikalje GC**, Suprasanna P, Zaware BN, Nikam TD (2017) Salt responsive physiological, photosynthetic and biochemical attributes at early seedling stage for screening soybean genotypes. **Plant Physiology and Biochemistry** 118:519-528. **(Elsevier, IF: 5.437; Citations: 50)**. ISSN 0981-9428
29. Muchate N, **Nikalje GC,** Rajurkar N, Suprasanna P, Nikam TD (2016) Physiological responses of the halophyte *Sesuvium portulacastrum* to salt stress and their relevance for saline soil bio-reclamation, **Flora** - *Morphology Distribution Functional Ecology of Plants*.224: 96-105. **(Elsevier, IF: 2.22; Citations: 77)**. ISSN 0367-2530. https://doi.org/10.1016/j.flora.2016.07.009.
30. Muchate N, **Nikalje GC,** Rajurkar N, Suprasanna P, Nikam TD (2016) Plant Salt Stress: Adaptive Responses, Tolerance Mechanism and Bioengineering for Salt Tolerance, **Bot Rev** 82 (4): 371-406. **(Springer, IF: 4.581; Citations: 273).** ISSN 18749372.
31. Lokhande VH, Kudale S, **Nikalje GC**, Desai NS, Suprasanna P (2015) Hairy root inductionand phytoremediation of textile dye, Reactive green 19A-HE4BD, in a halophyte, *Sesuvium portulacastrum* (L.) L. **Biotech Reports** 8: 56–63. (**Elsevier; Citations: 48)**. ISSN 2215-017X. https://doi.org/10.1016/j.btre.2015.08.002.
32. **Nikalje GC**, Zimare SB, Malpathak NP (2013) A comparative pharmacognostic study onthe leaf, stem and root components of *Gymnema sylvestre* (Retz) R. Br. Ex. Sm. **Proceedings of the National Academy of Sciences**, India - Section B: Biological Sciences83 (1): 125-134. **(Springer; Citations: 06)**. ISSN 0369-8211.

B. Books

1. Suprasanna P and *__Nikalje GC__ (2025) Harnessing *Sesuvium portulacastrum* for Biosaline Agriculture, Publisher- Springer ISBN: 978-981-96-3306-7 DOI: https://doi.org/10.1007/978-981-96-3307-4

2. **Nikalje GC**, Srivastava S, Chonde A, Suprasanna P (2025) Wild Vegetables: Morphology,Phytochemistry, and Utility Part 1. Bentham Books. ISBN: **978-981-5313-12-3;** DOI:10.2174/9789815313116125010 1.
3. **Nikalje GC**, Srivastava S, Chonde A, Suprasanna P (2025) Wild Vegetables: Morphology,Phytochemistry, and Utility Part 2. Bentham Books ISBN: **979-8-89881-001-6**. **(In Press).**
4. **Nikalje GC**, Shahnawaz M, Parihar J, Qazi HA, Patil VN, Zhu D (October 2024) Plant Secondary Metabolites and Abiotic Stress, Publisher- **Scrivener Publishing, Wiley, United Kingdom (Edited Book)** ISBN: 978-1-394-18643-3. https://www.wiley.com/en-sg/Plant+Secondary+Metabolites+and+Abiotic+Stress-p-9781394186433
5. Desai N, **Nikalje GC** (2025) Physiology of Halophytes: Signaling, Adaptation and Tolerance Mechanism, Apple Academic Press, Taylor and Francis group, USA. ISBN: 9781774917350 DOI: https://doi.org/10.1201/9781003504085.
6. Edited a book entitled, Frontiers in Life Sciences Vol III- by **Bhumi Publications**, ISBN: 978-81-953600-3-1. July 2021, pages: 1-163. **https://www.bhumipublishing.com/wp- content/uploads/2021/07/Frontiers-in-Life-Science-Volume-III.pdf**
7. **Edited a book** entitled, **PLANTA Research Book Series**- by Association of Plant Science Researcher (APSR) Plantica Foundation, Dehradun (U.K.) PLANTA-Vol.-7, October, 2023 (ISBN: 978-81-965701-8-7) pp 1-168**.** **https://planticapub.files.wordpress.com/2024/01/planta-vol-7-oct.-2023.pdf**
8. Edited a book entitled, **PLANTA Research Book Series**- by Association of Plant ScienceResearcher (APSR) Plantica Foundation, Dehradun (U.K.) PLANTA Vol. – 6, April 2023.**https://pgrindias.in/current-volume/** ISBN: 978-81-953419-1-7. pp 1-282.
9. Edited a book entitled, **PLANTA Research Book Series**- by Association of Plant ScienceResearcher (APSR) Plantica Foundation, Dehradun (U.K.) PLANTA Vol. – 4, April 2022.**https://planticapub.files.wordpress.com/2023/05/planta-vol.-6-april-2023.pdf** pp 1-140.

10. Edited a book entitled, **PLANTA Research Book Series**- by Association of Plant ScienceResearcher (APSR) Plantica Foundation, Dehradun (U.K.) ISBN: 978-81-953419-0-0. PLANTA Vol. – 5, October 2022. https://planticapub.files.wordpress.com/2022/12/planta- vol.-5-october-2022.pdf pp 1-79.

C. Book Chapters

1. Patil JR, Vichare V, **Nikalje GC*** (2026) Bioactive Compounds and Pharmacological Activities of *Podocarpus macrophyllus* (Thunb.) Sweet. In Bioactives and Pharmacology of Gymnosperms. Eds. Pullaiah T. Apple Academic Press. ISBN: 9781779642745.

2. **Nikalje GC***, Penna S (2025) Potentials of *Sesuvium portulacastrum* (L.) L. in Biosaline Agriculture. In Harnessing *Sesuvium portulacastrum* for Biosaline Agriculture. pp. 1-7. Singapore: Springer Nature Singapore.

3. Darshetkar AM, Maurya S, **Nikalje GC**, Choudhary RK, Barvkar VT (2025) Taxonomy, Geographical Distribution, and Evolutionary Dynamics of *Sesuvium portulacastrum* (L.) L. In Harnessing *Sesuvium portulacastrum* for Biosaline Agriculture pp. 9-22. Springer, Singapore.

4. Kulkarni J, Singh S, **Nikalje GC**, Borde M, Nikam TD, Srivastava AK, Penna S (2025) Physiological and Biochemical Modulations of Environmental Stress Adaptation in *Sesuvium portulacastrum* (L). L. In Harnessing *Sesuvium portulacastrum* for Biosaline Agriculture. pp. 55-73. Springer Singapore.

5. **Nikalje GC**, Yadav K, Lingampally SA, Penna S (2025) Exploring Salt Tolerance Genes in *Sesuvium Portulacastrum* (L.) L. Through the Transcriptomics and Genomics Approaches. In Harnessing *Sesuvium portulacastrum* for Biosaline Agriculture pp. 101-116. Springer Singapore.

6. **Nikalje GC***, Ben Hamed K, Penna S (2025) Success Stories of Biosaline Agriculture. In Harnessing *Sesuvium portulacastrum* for Biosaline Agriculture pp. 181-201. Springer Singapore.

7. Bapat VA, **Nikalje GC**, Penna S (2025) Research Progress in *Sesuvium portulacastrum* (L.) L. in the Present-Day Era: Challenges and Projections.

Harnessing *Sesuvium portulacastrum* for Biosaline Agriculture. 3:203-218. Springer Singapore.

8. Trivedi M, Raul D, *__Nikalje GC__ (2024) Role of Halophyte-Microbes Duo in Environmental Clean-Up. In Physiology of Halophytes: Signaling, Omics, and Tolerance Mechanisms. Desai and Nikalje (Eds). Apple Academic Press.
9. Shelke DB, Chambhare MR, More K, Sonawane HB, *__Nikalje GC__ (2024) Endophyte- Assisted Salinity Tolerance in Halophytes. In Physiology of Halophytes: Signaling, Omics, and Tolerance Mechanisms. Desai and Nikalje (Eds). Apple Academic Press.
10. Raul D, Pawar GP, Telave AB, Patil JR, *__Nikalje GC__ (2024) Habitat, Growth Response, and Adaptation Under Salinity in *Sonneratia* Sp. In Physiology of Halophytes: Signaling, Omics, and Tolerance Mechanisms. Desai and Nikalje (Eds). Apple Academic Press.
11. Bhusare BP, **Nikalje GC**, Sanap RR, Kale AD (2024) Potential Role of Halophytes in Environmental Clean-Up. In Physiology of Halophytes: Signaling, Omics, and Tolerance Mechanisms. Desai and Nikalje (Eds). Apple Academic Press.
12. Mhatre KJ, Patil JR, *__Nikalje GC__ (2024) Role of Flavonoids in Vasodilation. In: The Flavonoids: Extraction and Applications. Saini et al. (Eds). **Apple Academic Press** pp 245-262. **Hard ISBN:** 9781774913772.
13. ***Nikalje GC**, Patade VY, Mirajkar SJ, Suprasanna P (2024) Applications of radiations andmutagenesis for the enhancement of plant secondary metabolites. In *In vitro* Production of bioactive phytochemicals of medicinal value: A comprehensive treatise (Eds. P. B. Kavi Kishor, Suprasanna P, T. Pullaiah, A. R Rao). Elsevier pp 507-525. Paperback ISBN: 9780443218187
14. Sarsu F, Penna S, **Nikalje GC** (2023) Strategies for Screening Induced Mutants for Stress Tolerance. In: Mutation Breeding for Sustainable Food Production and Climate Resilience. Suprasanna and Jain (Eds) Springer Nature Singapore. pp. 151-176. ISBN- 978-981-16-9719-7 **(Citations: 04)**.
15. Patil JR, Ghane SG, ***Nikalje GC** (2023) Bioactives and Pharmacology of *Avicennia marina* In: Phytochemistry and Pharmacology of Medicinal Plants, 2-volume. Pullaiah T (eds) **Apple Academic Press** pp 375-386. ISBN

9781774911730

16. Patil JR, Ghane SG, ***Nikalje GC** (2023) Bio-actives and Pharmacology of *Derris scandens* (Roxb.) Benth. In: Bioactives and Pharmacology of Legumes. Pullaiah T (eds) **Apple Academic Press** pp 191-200. ISBN 9781774911266.
17. Patil JR, Ghane SG, ***Nikalje GC** (2023) Biomolecules and Pharmacology of *Hortia* Sp.(Family: Rutaceae). In; Biomolecules and Pharmacology of Medicinal Plants, 2-volume set. Pullaiah T (eds) **Apple Academic Press** pp 211-220. **Hard ISBN:** 9781774910764.
18. Trivedi M, Kedari S, ***Nikalje GC** (2022) Role of Nanoparticles in Remediation of Contaminated Soil. In: The Role of Nanoparticles in Plant Nutrition under Soil Pollution, Sustainable Plant Nutrition in a Changing World. V. D. Rajput et al. (eds.). **Springer** Champp. 353-370 **(Citation: 02)**. Hardcover ISBN 978-3-030-97388-9.
19. Saddhe A, Manuka R. **Nikalje GC**, Suprasanna P (2021) Halophytes as a Potential Resource for Phytodesalination. In Handbook of Halophytes: From Molecules to Ecosystems towards Biosaline Agriculture. Grigore MN. (eds) **Springer**, Cham pp- 1-21 **(Citation: 17)**. ISBN: 978-3030576349.
20. Patade VY, **Nikalje GC**, Srivastava S (2020) Role of Thiourea in Mitigating Different Environmental Stresses in Plants. In: Protective Chemical Agents in the Amelioration of Plant Abiotic Stress: Biochemical and Molecular Perspectives, Roychoudhury and Tripathi(Eds). **Wiley Online Library** Pp- 467-482 **(Citation: 13)**. Print ISBN: 9781119551638.
21. Shelke DB, Nikalje GC, Nikam TD, Maheshwari P, Punita DL, Rao KRSS, Kavi Kishor PB, Suprasanna P (2019) Chloride (Cl−) Uptake, Transport, and Regulation in Plant Salt Tolerance. In: Molecular Plant Abiotic Stress: Biology and Biotechnology, First Edition. Eds. Roychoudhury and Tripathi, **Wiley Online Library**. Pp 241-267 **(Citations: 18)**. ISBN: 978-1-119-46369-6.
22. ***Nikalje GC**, Shelke DB, Yadav Kushi, Suprasanna P (2019) Halophytes: Prospective Plants for Future. In Ecophysiology, Abiotic Stress Responses and Utilization of Halophytes, Mirza Hasanuzzaman et al. (Eds): **Springer, Singapore** pp- 221-234**. (Citations: 33).** Hardcover ISBN 978-981-13-3761-1
23. **Nikalje GC,** Saini N, Suprasanna P (2019) Halophytes and Heavy Metals:

Interesting Partnerships. In Plant-Metal Interactions, Srivastava et al. (Eds): **Springer, Cham** pp- 99-118 **(Citations: 05)**. **Hardcover ISBN** 978-3-030-20731-1.

24. **Nikalje GC**, Yadav Kushi, Suprasanna P (2019) Halophyte Responses and Tolerance to Abiotic Stresses. In Ecophysiology, Abiotic Stress Responses and Utilization of Halophytes, Mirza Hasanuzzaman et al. (Eds): **Springer, Singapore** pp- 1-23. **(Citations:15).** Hardcover ISBN 978-981-13-3761-1.
25. Suprasanna P, Ghuge S, Patade VY, Mirajkar SJ, **Nikalje GC** (2018) Genomic Roadmapsfor Augmenting Salinity Stress Tolerance in Crop Plants. Eds: Kumar et al. In Salinity Responses and Tolerance in Plants, Volume 2 **Springer, Cham.** pp-189-216 **(Citation: 15)**. Hardcover ISBN 978-3-319-90317-0
26. ***Nikalje GC**, Mirajkar SJ, Nikam TD, Suprasanna P (2018) Multifarious Role of ROS inHalophytes: Signaling and Defense. *In*: Zargar S. et al. (eds.) Abiotic Stress-mediated Sensing and Signaling in Plants: An Omics Perspective, **Springer** pp 207-223. (**Citations: 12).** Hardcover ISBN- 978-981-10-7478-3.
27. Shelke DB, **Nikalje GC**, Sahoo PK (2017) Salt Stress Responses of Glycophytic Rice andHalophytic Rice: Physiological, Biochemical, and Molecular Aspects. In: Verma et al. (eds.) Rice Science Biotechnological and Molecular Advancements. Eds. **Apple AcademicPress** pp. 53-68. ISBN 9781774633908
28. Suprasanna P, **Nikalje GC,** Rai AN (2016) Osmolyte accumulation and implications in plant abiotic stress tolerance. *In*: Iqbal N.et al. (eds.) Osmolytes and plants acclimation to changing environment: emerging omics technologies, **Springer** 1-12 **(Citation: 119)**. **Hardcover ISBN** 978-81-322-2615-4.

D. NCBI sequence submissions

Nikalje GC, Srivastava AK, Sablok G, Nikam TD, Suprasanna P. **137 mRNA sequences** of *Sesuvium portulacastrum* were submitted to NCBI (Accession numbers)

Reference genes: KY056733- KY056770,

Ion Transporters: KY315606- KY315642,

Orthologous genes in Arabidopsis: KY426838- KY426890,

miRNA Targets: KY434024-KY434042.

E. Patent:

Title: Weed Biomass to Biochar and Composting Device
Inventors: Naikwade PV, **Ganesh Nikalje**, Mogle UP, Ghadge SA, Sanap SB, Rao MS, More PS, Mhatre KJ
Publication date: 2024/10/22; Patent office: India; Patent number: 435156-001

F. Conference presentations

- **Nikalje GC** (2024) Metabolic profiling of a fungal endophyte *Fusarium solani* associated with *Avicennia officinalis* L. poster presented in **International** Conference on Role of Fungi in Sustainable Development -From Exploration to Application & 2nd Annual Meet of Association of Fungal Biologists (AFB) organized by Prof. Ramkrishna More Arts Commerce and Science College, Akurdi, Pune 411044, India and Department of Botany Savitribai Phule Pune University, Pune 411007, India; October 23-25, 2024.

- **Nikalje GC** (2024) Identification of bioactive compounds from *Avicennia officinalis* L. and *Sonneratia apetala* L. using LC/MS based metabolic profiling, poster presented in **National** Conference on "Plant "Omics": Recent Trends and Applications" organized by Department of Botany, Savitribai Phule Pune University, Pune, on 21st and 22nd February 2024.

- **Nikalje GC** (2021) Metabolic Profiling of *Avicennia officinalis* and *Sonneratia apetala* foridentification of bioactive compounds, poster presented in international conference in Research Interventions and Technological Advancements in Plant Sciences organized by S. P. K College Sawantwadi and Association of Plant Science Researchers, Deharadun, India, on 26th and 27th March, 2021 **(Young Scientist Award)**.
- Nikalje GC (2019) Halophytes: the future crops, invited talk in State Level Conference on Innovative Prospects in Basic and Applied Plant Sciences Organized by Department of Botany, K.T.S.P. Mandal's Hutatma Rajguru Mahavidyalaya, Rajgurunagar, Pune- 410505, India dated 27th and 28th December, 2019 **(Resource Person).**

- **Nikalje GC** (2019) Exploitation of a Mangrove associate, *Sesuvium portulacastrum* for eco-restoration and bioprospecting Oral Presentation in National Conference on- Mangroves and Coastal resources organized by Department of Botany, Shivaji University,Kolhapur, Mangroves Society of India,

Goa and Mangrove Foundation, Mumbai, India, on12th April, 2019.

- Nikalje GC (2018) Looking at salt adaptation mechanism in the halophyte *Sesuvium portulacastrum* L. through the transcriptomic and metabolomic approaches, poster presented in International Conference on Frontiers in Life and Earth Sciences, organized by PDEA's Prof. Ramkrishna More Arts, Commerce and Science College, Pune, India dated 18th and 19th January, 2018 **(Best Poster Award).**
- **Nikalje GC** (2018) Utilization of halophyte, *Sesuvium portulacarum* for sustainable biosaline agriculture, poster presented in DAE-BRNS Life Sciences Symposium 2018 on Frontiers in Sustainable Agriculture on organized by Bhabha Atomic Research Centre, Mumbai dated 26th and 28th April 2018.
- **Nikalje GC**, Srivastava AK, Sablok G, Nikam TD, Suprasanna P (2015) Integrating RNAtranscriptome wide and microRNA analyses for the identification of molecular regulators associated with high salt tolerance in *Sesuvium portulacastrum* (L.)" poster presented in 3rd International Plant Physiology Congress 2015: Challenges and strategies in Plant Biology Research; Organized by Indian Society for Plant Physiology, Jawaharlal Nehru University, National Institute of Plant Genome Research on 11th to 14th December, 2015.
- **Nikalje GC**, Srivastava M, Nikam TD, Suprasanna P (2014) Cesium heavy metal accumulation in medicinally important halophyte: *Sesuvium portulacastrum* (L.) L." In a national seminar entitled "National seminar on- Medicinal Plants – Bioprospecting, Agrotechnique, and Enhancement of Secondary Metabolites" organized by Department ofBotany, Savitribai Phule Pune University, Pune- 411 007, On 30-31st January, 2014.

G. Workshops

a. Attended Two days' workshop on "Plant Taxonomy: Theory and Practices", Organized by Department of Botany, Shivaji University, Kolhapur on 21st and 22nd February, 2022
b. Attended Four Days Bioinformatics workshop on "RNA Seq data analysis" organized by Indian Women Scientists Association (IWSA) and Bencos, Mumbai, conducted by Dr. Konrad Forstner, Institute for Molecular

Infection Biology (IMIB), University of Wurzburg, Germany at ICICI Multipurpose Hall, Vashi, Mumbai- 400703, on 13th to 16thFebruary 2017.

c. Attended Two days DBT Workshop on "Applications in Bioinformatics" sponsored by Department of Biotechnology (DBT), Govt. of India, organized by Advanced Centre for Treatment, Research and Education in Cancer (ACTREC) at Tata Memorial Centre, NaviMumbai- 410 210, on 23rd and 24th April 2015.
d. Attended one-day workshop on "Understanding of Origin and EndNote Software" organized by Centre for Sensor Studies, Savitribai Phule Pune University, Pune on 17th October 2015.
e. Attended One-day workshop on "Camag HPTLC System" organized by CAMAG Switzerland recognized Applications Research Laboratory, Anchrom Enterprises (I) P. Ltd. Mumbai- 400 081, on 30th December, 2013.
f. Conducted one session on "ZOOM platform" in One-week online workshop on "E-contentDevelopment" organized by Internal Quality Assurance Cell of Smt. Akkatai Ramgonda Patil Kanya Mahavidyalaya, Ichalkaranj, Kolhapur, Maharashtra- 416115 **(Resource Person)**.

Other academic activities:

a) Extension Work: I am actively working on various extension activities related to students at the college level. I have worked in different college committees including the Science Association,Green Club, and Career Guidance, and carried out the following extension activities: Tress plantation, Donation of clothes to tribal children, cleanliness drive under Swachh Bharat Abhiyan,Science exhibition, career fair at national level.

b) Co-curricular and extra-curricular activities: In our college, I have conducted excursions, and field and industrial visits for both undergraduate and postgraduate students, and organized different competitions including scientific rangoli, poster making, and oral presentations for the development of students. I have also worked on a cultural committee and organized annual functions in college. I have worked as a Board of Studies member in Botany subject at T. C. College, Baramati (Autonomous), and was involved in the reframing of FY, SY, TY, MSc I, MScII Botany syllabus. This year, I am appointed as a Board of Studies (BOS) member in Botany subject at Shikshan Prasarak Sanstha's

Sangamner Nagarpalika Arts, D. J. Malpani Commerce and B. N. Sarda Science College, Sangamner (Autonomous) from 2023-2024 to 2025-2026.

c) Activities concerning corporate life: I am a member of the Green Club of our college. This club is part of an initiative of government programs. Under the umbrella of this club, we have adopted some areas near our college and taken responsibility for keeping them clean and spreading

awareness about cleanliness. We are also conducting activities including no vehicle day, and treeplantation through the involvement of students.

d) Any other work: I am working as an IQAC member- Criterion III in charge (2019- till date). Worked as Examination Committee member (IT Coordinator for both online and offline examinations). Also, actively participated in the application for the PM-USHA grant (Programme Monitoring Unit). Since 2018, working in Admission committee (reservation representative) and counselling the students for the same.

Other Activities:

a) National Cadet Corps (NCC): Qualified 'B' certificate (November 2008) and 'C' certificate(28th May 2009) Physical and Written Examination with 'B' grade in NCC (2 MaharashtraBattalion, NCC Pune- Army wing) from Tuljaram Chaturchand College, Baramati (2007-2009). Camps attended:

1. Combined Annual Training Camp (CATC) at Dighi, Pune.
2. Thal Sainik Camp (TSC) at NCC Headquarter, Pune.

b) National Service Scheme (NSS): Successfully Completed NSS activities at TuljaramChaturchand College, Baramati (2008-2010).

1. National Pre-Republic Day Parade State Level Selection Camp, Organized by the NSS Regional Centre Pune, Ministry of Youth Affairs and Sports, Government of Maharashtra, Mumbai in Collaboration with NSS Cell Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur from 16th to 19th September, 2009.
2. NSS National Pre-Republic Day Parade Camp 2009, Organized by the NSS Regional Centre Pune, Ministry of Youth Affairs and Sports, Government of Maharashtra at University of Pune from 19th to 28th October 2009.
3. "Vishesh Shramsanskar Shibir 2009" Planning Workshop organized by NSS Pune University and T.C. College, Baramati on 5th December 2009.

c) Sports:

National Player of Karate (Shotokan): Won Third place in Team Kata event in 18 years and Aboveage group at 10th National Karate Championship 2009 organized by The World Shotokan Karate-Do Federation, India at Raje Chatrapati Sambhaji Indoor Stadium, Nashik, Maharashtra from 24thMay to 28th May 2009.

Professional recognition, awards, and fellowships received

1. Invited as '**Judge**' for **19th Aavishkar**: Inter-Collegiate / Institute / Department Research Convention (Zonal Round) organized by Department Student's Development, University of Mumbai at Lala Lajpatrai College of Commerce and Economics, Mahalakshmi, Mumbai for Category 3: Pure Sciences and UG Level.
2. Worked as Joint-Coordinator for **Short Term Course** in '**Research Methodology**" organized by UGC Malaviya Mission Teacher Training Centre, University of Mumbai, Coordinated by R. K. Talreja College of Arts, Science and Commerce, Ulhasnagar-3.
3. Delivered a **talk on "Beat Plastic Pollution"** at Sadhubella Education Society's J. Watumull Sadhubella Girls College, Ulhasnagar- 421001 on the occasion of **World Environment Day** dated 6th June 2025.
4. Worked as Evaluator **for Action Research Project for Dr. Homi Bhabha Balvaidnyanik Competition 2024 –25** Conducted by Mumbai Science Teachers' Association for Std. VI at K. J. Somaiya College of Science & Commerce, Vidyanagar Vidyavihar, Mumbai 400077. Sunday, 16th March 2025.
5. Worked as **Evaluator for Action Research Project for Dr. Homi Bhabha Balvaidnyanik Competition 2023 – 24** Conducted by Mumbai Science Teachers' Association for Std. IX at

   D. S. High School, Near Gurukrupa Hotel, Sion, Mumbai – 400022 on Sunday, 17th March 2024.
6. Delivered a **talk on** "**Wetlands**" at Sadhubella Education Society's J. Watumull Sadhubella Girls College, Ulhasnagar- 421001 on the occasion of World Wetland Day dated 2nd February,2024.
7. **Board of Studies (BOS) member** in Botany subject at Shikshan Prasarak Sanstha's Sangamner Nagarpalika Arts, D. J. Malpani Commerce and B. N. Sarda Science College, Sangamner (Autonomous), Maharashtra, India from 2023-2024 to 2025-

2026.

8. **Recognized Guide for PG (By Papers and Research) and Ph.D. in Botany** at Seva Sadan's R. K. Talreja College of Arts, Science and Commerce, Affiliated to the University of Mumbai.Ulhasnagar-3.
9. **Young Scientist Award 2023** received at National Conference on Innovations in S&T for future sustainability (ISTFS- 2023) jointly organized by Dr. Ambedkar College, Deekshabhoomi, Nagpur, India and ICAR-Central Institute for Cotton Research (CICR), Nagpur, India dated 4th March, 2023.
10. **Third Prize in Oral Presentation** at International Conference organized by Department of Botany, Rayat Shikshan Sanstha's D. P. Bhosale College, Koregaon, District - Satara, 415501 on "Emerging Trends in Plant Sciences, Biodiversity Conservation, and Environment Sustainability" (ETPSBCES-2022) dated 9th and 10th November 2022.
11. **Best Researcher Award** (2021-2022) received from International Journal of MicrobialScience ISSN no- 2582-967X.
12. **Guest Editor** in Current Chemical Biology journal **(Bentham and Science)** Theme- "Plant Stress and Defence Metabolites at the interface of plant environment interaction"
13. **M. S. Swaminathan Research Excellence Award 2021** received from Association of Plant Science Researchers (APSR), Plantica Foundation Dehradun, India.
14. **Young Plant Scientist award 2021** received from Association of Plant Science Researchers(APSR), Plantica Foundation Dehradun, India.
15. **Advisor in Two days International Conference** on "Proceedings in Life Science" Organizedby "International Journal of Microbial Science" on 1st and 2nd March 2021.
16. **Scientific Writing Trainer** in 3 months Online Training Programme for Review and Research paper writing, organized by "International Journal of Microbial Science" dated 3rd January 2021 to 30th March 2021.
17. **Board of Studies (BOS) member** in Botany subject at Tuljaram Chaturchand College, Baramati (Autonomous) from January 2019 to January 2022.
18. **Invited guest lecturer** at **Botanical Survey of India**, Pune for a talk on "Threats and Stress to Mangroves and their conservation strategies" under the Green Skill Development Programme of the Ministry of Environment, Forest and Climate Change,

on 14th August 2018.

19. **DST-SERB Travel grant** to attend "14th International Phytotechnologies Conference" organized by the International Phytotechnology Society held at Hotel Omni Montreal, Montreal, Canada, from 25th to 29th Sept. 2017.
20. **Research fellowship under** Bhabha Atomic Research Centre- Savitribai Phule Pune University collaborative Ph.D. program, October 2012, funded by the Department of AtomicEnergy, India (JRF from October 2012 and SRF from October 2014- October 2017).
21. **Best Poster Award** in International Conference entitled, "Frontiers in Life and Earth Science." Organized by Prof. R. M. College, Akurdi, Pune- 411035, On 18-19th January 2018.
22. **Resource person** at State Level Conference on "Innovative Prospects in Basic and Applied Plant Science" organized by Hutatma Rajguru Mahavidyalaya, Rajgurunagar, Pune- 410505 on 27th & 28th December 2019.
23. **Resource person** at Five Days Online Workshop on E-Content Development organized by Smt. Akkatai Ramgonda Patil Kanya Mahavidyalaya, Ichalkaranji, Kolhapur- 416115 on 27thto 31st May 2020.

Editorial Contribution:

As Editor (12 Journals): Physiologia Plantarum (Wiley IF 5.081); BMC Plant Biology (Springer Nature IF 4.3), Frontiers in Plant Science (Frontiers IF:5.753), Peer J (IF 2.7), Current Chemical Biology (Bentham and Science), Advances in Agriculture (Wiley Online Library), American Journal of Plant Biology (Science Publishing Group), International Journal ofBotany Studies, Annals of Plant Sciences, National Journal of Pharmaceutical Science (AkiNik Publications), International Journal of Microbial Science, Planta Research Book Series.

As Reviewer (>50 Journals):

Trends in Environmental Analytical Chemistry (**IF: 13.622**), Journal of Hazardous Materials (Elsevier **IF: 11.3**); Ecotoxicology and Environmental Safety (Elsevier **IF: 7.129**), Frontiers in Plant Science (Frontiers **IF: 6.627**), Pharmaceutics (MDPI **IF 6.525**), International Journal of Molecular Science (MDPI **IF: 6.208**), Biomolecules (MDPI **IF: 6.064**), Environmental and Experimental Botany (Elsevier **IF: 5.547**), Bio-protocol (Bio- protocol **IF: 5.780**), Science of Total Environment (Elsevier **IF: 5.589**), Journal of Plant Growth Regulation (Springer **IF: 5.22**), Pedosphere (Elsevier IF: 5.2);

Molecules (MDPI **IF 4.927**), Journal of Plant Growth Regulation(Springer **IF:4.640**), Toxics (MDPI **IF 4.472**), Industrial Crops and Products (Elsevier **IF: 4.244**),Genes (MDP **IF: 4.141**), Scientific Report (Nature **IF: 4.12**), Agronomy (MDPI **IF: 3.949**), Water(MDPI: **IF 3.53**), Agriculture (MDPI **IF: 3.408**), Sustainability (MDPI **IF: 3.885**), Plant Cell Reports (Springer **IF: 3.825**), Plos One (**IF: 3.752**), Photosynthesis Research (Springer **IF: 3.429**),Forests (MDPI **IF: 3.282**), Life (MDPI **IF: 3.253**), Physiologia Plantarum (Wiley Online Library**IF: 3.0**), Fungal Genetics and Biology (Elsevier **IF: 3.0**), Atmosphere (MDPI **IF: 3.110**), South African Journal of Botany (Elsevier **IF: 3.1**), Journal of Radiation Research & Applied Sciences (Taylor & Francis **IF:2.97**), Applied Science (MDPI **IF: 2.838**), Journal of Applied Phycology (Springer **IF: 2.8**) Gene (Elsevier **IF: 2.638**), International Journal of Phytoremediation (Taylor and Francis **IF: 2.237**), BioMed Research International (Hindawi **IF: 2.197**), Physiology and Molecular Biology of Plants (Springer **IF: 2.005**), All Life (Taylor and Francis **IF 2.0**), Acta Physiologie Plantarum (Springer **IF: 1.608**), Natural Resource Forum (Wiley **IF: 1.436**), Biologia (Springer IF **1.35**), BMC Research Notes (BMC series); Food Bioengineering (Wiley Online Library), Plant Nano Biology (Elsevier), Advances in Agriculture (Hindawi), Biocatalysis and Agricultural Biotechnology (Elsevier), Environmental Sustainability (Springer), Journal of Cotton Research (Springer), Current Enzyme Inhibition (Bentham and Science),International Journal of Microbial science, Plant Cell Biotechnology and Molecular Biology, Plant Science Today

References

1. **Prof. Dr. Penna Suprasanna,** Dean, Amity Institute of Biotechnology, Amity Universityof Maharashtra, Mumbai, India and Ex. Head, Nuclear Agriculture and Biotechnology Division, Bhabha Atomic Research Centre, Mumbai- 400085**; Email ID: prasanna@barc.gov.in/ penna888@yahoo.com**
2. **Prof. Dr. T. D. Nikam,** Emeritus Scientist, Department of Botany, Savitribai Phule Pune University, Pune- 411007**. Email ID: tdnikam@unipune.ac.in**
3. **Prof. Dr. J. C. Hong,** Division of Life Science and Division of Applied Life Science (BK21 Four), Plant Molecular Biology and Biotechnology Research Center, Gyeongsang National University, Jinju, Gyeongnam-do 52828, Republic of Korea **Email ID: jchong@gnu.ac.kr**
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