

Dr. Neeta Shivakumar, Associate Professor

Educational Qualification	Ph.D (Biotechnology), Kuvempu University, PGDNB		
Experience	Teaching	16 years	
	Research (along with teaching)	20 Years	
Areas of Interest	Agriculture Biotechnology and Nanotechnology		
Date of joining RVCE	28-06-2007		
email-id	neeta@rvce.edu.in		

No of Projects Guided

UG projects guided : B.Tech: 18

PG projects guided : M.Tech: 20

No. of Ph.D. Students: 02

No of Publications:

National Journal : 08

National Conference : 07

International Journal: 19

International Conference : 14

National Journal:

1. **Neeta Shivakumar** and Pushpa Agrawal, 2013, Characterization of the cultivars of ginger for oleoresin content. *Advances in Applied Research* 5 (1), 67-71 (NAAS& google scholar)
2. **Neeta Shivakumar**, Sukanya R. ,Poornima S. and P,2014, Future and Prospects of Biochips, *Innovare journal of Engineering and Technology*, Vol 2, (1), 2013, 5-9 (Google scholar)
3. **Vastrad, N.V.**, Patil, P.N. and Dinesh, M R., 2009, Donar plant climatic factors effect the *in vitro* establishment of (*Carica papaya* L). *Journal of Ecobiology*- 24(1)-17-30.
4. Patil, P.N., **Vastrad, N.V.**, and Dinesh, M R., 2007, *In vitro* propagation of papaya (*Carica papaya*) from the field grown trees. *Journal of Horticultural Sciences* – Vol: 2(2): 99-103.

5. **Vastrad, N. V.**, Hegde, R and Girithammanavar, V., 2006. Effect of light Intensity and Vermicompost on Growth and yield of parameters of ginger. *Karnataka Journal of Agricultural Sciences*. Vol: 19(4): 936-940.
6. **Vastrad, N. V.**, Hegde, R and Girithammanavar, V., 2006. Effect of light Intensity and Vermicompost on Yield of ginger. *Karnataka Journal of Agricultural Sciences*. Vol 19(4): 941-945
7. **Vastrad Neeta** and R. Hegde, 2001, Rapid Clonal propagation of ginger- Kissan World- Oct 2001-pp 12-13
8. **Vastrad, N V., Sulikeri, S. and Hegde. R., 2000. Effect of light Intensity and Vermicompost on Quality of ginger. Karnataka Journal of Agricultural Sciences. Vol 14(4): 1143-1144.**

National Conferences:

1. Sudeep M, Pratham Kumar N, Raghav Raja and **Dr Neeta Shivakumar**, 2019, Synthesis and Biological Applications of PHA (Polyhydroxyalkanoates and PLA(Poly lactic acid) in 7th National conference on Emerging trends and New challenges in Biotechnology - advances in bioplastics held at MGR college Hour from 30th -31 of January 2019
2. Ms Manasa Hegde and **Dr Neeta Shivakumar** International Conference on affordable strategies in health and Environment held at NMAMIT, Karkal, Mangalore from 23-24 May 2018
3. **Neeta Shivakumar** and Manasa Effect of chitosan on in vitro culture of *Vigna radiata* applications held at Bengaluru Tech Summit held from 29-1st of Dec 2018, Bengaluru Palace.
4. **Neeta Shivakumar**, Melita M and Pushpa Agrawal (2017) Green synthesis of Quantum dots presented at Bengaluru Tech summit, Palace grounds held from 16th to 18th November 2017
5. **Neeta Shivakumar** and Archana S Kanagi, (2013) Ginger facts and Health benefits Green wealth –A strategy for health in National conference on held at Mount Carmel College, Bangalore during 27th and 28th Feb ,2013
6. **Neeta Shivakumar**, Dr Pushpa Agrawal, Dr Ramakrishna Hegde, Dr Mahesh S and Praveen Kumar Gupta (2012) Characterization of the cultivars of ginger for their oleoresin content in National Conference on held in MSRIT, Bangalore during 11-13th April 2012.
7. **Neeta Shivakumar**, Pushpa Agrawal, Shivanandappa and Madhavi, D.K (2008) Computational analysis of male and hermaphrodite RAPD marker of *Carica papaya* in National Conference on Genomics, Proteomics and Systems Biology, held at IISc campus, Bangalore during 1-3rd October 2008.

International Journal:

1. Ritwija Bhattacharjee and Dr. Neeta Shivakumar, 2022 A review on Diabetes, Biosensors and Continuous Glucose Monitoring. *International Advanced Research Journal in Science, Engineering and Technology* 8(6): 357-366
2. Neeta Shivakumar, Varshini V., Preeti A, Sushma S, Praabanch and Mrudula, 2021, Study of molecular markers in Agroforestry, *International journal of advanced research, Ideas and Innovations in technology*, 7(3) - 941-945.
3. Pavithra Rajur and Neeta Shivakumar, 2021, Artificial Intelligence in weed control and management. *International journal of advanced research, Ideas and Innovations in technology*, 7(3): 751-756
4. Neeta Shivakumar, Darshan, Jyoti and Nandita. 2020, Effect of silicon nanoparticles on growth of *Vigna radiata*. *International journal of Pharmacy and Biosciences*. 11(4): 113-120
5. **Neeta Shivakumar** and Manasa N Hegde. Use of Chitosan as Low Cost Source to Overcome Endophytic Contaminations under In vitro Conditions, *Plant Tissue culture and Biotechnology*, 26(1): 121-126, 2019 (June) (SJR)

6. **Neeta Shivakumar and Pushpa Agrawal**, "The effect of chemical mutagens upon morphological characters of ginger (*Zingiber officinale*) in M0 generation" Asian Journal of Microbiology, Biotechnology and Environmental Sciences. Vol 20, 126-135, 2018. (SJ_R, scopus, UGC)
7. **Neeta Shivakumar and Pushpa Agrawal**, Genetic Diversity of NMT gene in Coffee using SCAR Marker in International Journal of Advanced Science and Research, Volume 3; Issue 2; March 2018; Page No. 116-119.(Google scholar, RV)
8. Phalgun Madhusudana and **Neeta Shivakumar**, Smart packaging for the 21st century – economics, trends and sustainability –in Materials Today proceedings:5(2018) 22087-22090 (SJ_R)
9. Aashrith Kalale, **Neeta Shivakumar** and Akshay kumar, In vitro evaluation of anticancer and anti-oxidant activity of Poly Herbal Formulations for breast cancer, International Journal of Advanced Scientific Research and publications, 2(1), 14-17. 2015.(Google scholar)
10. Aashrith Kalale, **Neeta Shivakumar** and Akshay kumar , 2015, In vitro evaluation of anticancer and antimicrobial activity of selected medicinal plants for breast cancer, International Journal of Scientific research,4(4)-627-630. (2277-8179).(Google scholar)
11. Ramya, I.R., **Neeta Shivakumar**, 2014, Design of TALEN to Edit the Genome of *Burkholderia Glumae*
12. International journal of advanced engineering and communication sciences.
13. 3(3) 27:3 (RV Inst, Google scholar)
14. **Neeta Shivakumar** and Pushpa agrawal, 2014, Callus induction and regeneration from adventitious buds of *Zingiber officinale*, Asian Journal of Microbiology, Biotechnology and Environmental Sciences.16(4):881-885.(UGC, Scopus & NAAS)
15. Praveen Kumar gupta, Ashok Kumar **and Neeta Shivakumar**,2013, An overview of immunogenic Adjuvants, Journal of Vaccines and Vaccination, Omics group, 4(1)167-170, (SJ_R)
16. Archana Kanagi and **Neeta Shivakumar**, 2013, Ginger –Facts and Health Benefits, International journal of Engineering and technology, 2(6)234-270. (Sj_R)
17. **Neeta Shivakumar**, Pushpa Agrawal and Praveen kumar Gupta, 2013, Green Pharmacy –An alternative and complementary medicine. International Journal of Pharmaceutical Sciences and Research, 4(2), 575-581. (ESCI)
18. Praveen kumar Gupta, Dr Pushpa Agrawal, **Dr Neeta Shivakumar** and Suhasini.B.Hiremath, 2011, In-Silico modelling and drug design-An Overview/A review. International journal of pharmacy- 2(9), 15-17. (Google scholar)
19. **Vastrad, N. V.**, Lalita, A. and Patil, P. N., 2005, A Male and Hermaphrodite marker for sex determination in Papaya (*Carica papaya* L). *Journal of Asian Horticulture* Vol. 2 (1): 72-74

International Conferences:

1. Dr Neeta Shivakumar and Reshma R,2022, Stereomicroscopic analysis of the mutants of ginger using chemical mutagens in International Conference at NMIT, Karkal on 16-18th February 2022
2. Dr Neeta Shivakumar, Pavitra Rajur, Reshma R ,2021, Design of Biosensors for detection of spoilage in strawberry presented at the Virtual International Conference on Product Design, Development and Deployment organized by VIT Vellore on 11th & 12th September 2021.
3. Dr Neeta Shivakumar, Darshan, Jyoti and Nandita Ramprasad (2018) Toxicity studies of silicon dioxide nanoparticles on *Vigna radiata* presented at International conference on Nanomaterials and its applications held from 1-2nd March , at Mysore University, Mysore
4. Tejaswini Rao and Neeta Shivakumar (2018) Green Synthesis of nanoparticles using millets presented at International conference on Nanomaterials and its applications held from 1-2nd march 2018 at Mysore University, Mysore

5. **Neeta Shivakumar**, Laxmi and Pushpa Agrawal (2016) Characterization of chlorophyll mutants in ginger induced by chemical mutagenesis in M0 and M1 generation in International Conference on Agricultural Sciences and Food Technologies for sustainable productivity and nutritional security held at UAS Bangalore from 25-27th August 2016.
6. **Neeta Shivakumar** and Phalgun Madhusudan (2016) Smart materials in food packaging. In International Conference for Smart Engineering Materials held from 20-22nd October 2016.
7. **Neeta Shivakumar**, Pushpa Agrawal and Archana Kanagi (2015) Effect of chemical mutagens on the growth parameters of ginger in Mo generation in International Conference on Agriculture and Forestry, held at **Srilanka, Columbo** from 10 to 12th June 2015.
8. Neeta Shivakumar, **Aashrith kalale** (2014) Biodegradable polymers held in International Conference on Environmental Research (ICER) at RVCE from Dec-26 -28, 2014.
9. Neeta Shivakumar, **Aashrith kalale** (2014) Active thin films in food packaging held in International Conference on Large Area and Flexible Macroelectronics (ILAFM) held at RVCE from 18-21st Dec. 2014.
10. Ramya R and **Neeta Shivakumar** (2014), Design of TALEN to Edit the Genome of Burkholderia Gluma in International conference on Engineering and applied Science held on 13th July 2014 organized by IRD India held at Bangalore.
11. **Neeta Shivakumar**, Pushpa Agrawal and A.R. Bantwal (2008) Evolutionary genomics of Male specific region in different cultivars of Carica papaya in International Conference on Structural Bioinformatics –Structure and Function of Macromolecules, held at SRCW, Coimbatore during 12 January 2008 (pp: 33).
12. **Neeta Shivakumar**, Pushpa Agrawal and A.R. Bantwal (2008) Evolutionary genomics of Male specific region in different cultivars of Carica papaya in International Conference on Structural Bioinformatics –Structure and Function of Macromolecules, held at SRCW, Coimbatore during 12 January 2008 (pp: 33).
13. **Neeta Vastrad**, Lalitha Anand, Prakash Patil and A.R. Bantwal (2005) RAPD marker for sex identification in Carica papaya L First International Symposium on Papaya held at Genting highlands, Malaysia, during 21-24 November 2005 (pp: 36).
14. Prakash Patil, **Neeta Vastrad**, Lalitha Anand and M.R.Dinesh (2003) Effect of season on initiation and establishment of in vitro cultures of papaya (Carica papaya L.) in Second International Congress of Plant Physiology held at IARI, New Delhi during 8-12, January 2003 (pp: 526).

Attended

1. Neeta Shivakumar, Laxmi S , Pushpa Agrawal (2016) – Characterization of chlorophyll mutants in ginger induced by chemical mutagenesis in MO and M1 generation at International Conference on Agricultural Sciences and Food Technologies for Sustainable Productivity and Nutritional Security from 25th to 27th August 2016 held at GKVK, Bangalore
2. Neeta Shivakumar, Pushpa Agrawal and Archana Kanagi (2015) Effect of chemical mutagens on the growth parameters of ginger in Mo generation held at Srilanka, Columbo from 10 to 12th June 2015.
3. TEQIP sponsored Faculty Development programme on “Nanomaterials and characterization of thin film” held from 18 to 20th February 2014 at R V College of Engineering, Bangalore.
4. Neeta Shivakumar and Archana S Kanagi, (2013) Ginger facts and Health benefits Green wealth –A strategy for health in National conference on held at Mount Carmel College, Bangalore during 27th and 28th Feb ,2013
5. Neeta Shivakumar and Pushpa Agrawal (2013) Genetic diversity of NMT gene in coffee (Coffea arabica) using SCAR markers in International Conference on Recent Advances and challenges in

Biotechnology (ICRACBT -2012) from 27th -29th December 2012 held at NMAM institute of Technology, Nitte.

6. Neeta Shivakumar and Pushpa Agrawal (2013) Genetic diversity of NMT gene in coffee (*Coffea arabica*) using SCAR markers in International Conference on Recent Advances and challenges in Biotechnology (ICRACBT -2012) from 27th -29th December 2012 held at NMAM institute of Technology, Nitte.
7. 3rd National Conference on “Agricultural Biotechnology – Biotechnology a Versatile Tools for Agriculture in Emerging Context from 10-11 December 2013 at Taj West End Bangalore.
8. TEQIP sponsored Faculty Development programme on “Kitchen waste management” held from 7 to 9 September 2013 at R V College of Engineering, Bangalore.
9. TEQIP sponsored Faculty Development programme on “Multifunctional Engineering Materials” held from 7 to 9 September 2013 at R V College of Engineering, Bangalore.
10. TEQIP sponsored Faculty Development programme on “Scanning Electron Microscope” held from 8 to 10 April 2013 at R V College of Engineering, Bangalore.
11. Neeta Shivakumar, Pushpa Agrawal, Ramakrishna Hegde, Mahesh S and Praveen Kumar Gupta (2012) Characterization of the cultivars of ginger for their oleoresin content in National Conference on held in MSRIT, Bangalore during 11-13th April 2012
12. UGC sponsored Workshop on “In silico and In vivo gene expression in prokaryotes” held from 14 to 17 th March 2012 at Maharani ammani College for Women, Bangalore.
13. Workshop on “Technological solutions for environmental problems held by Dept. of Civil engineering, RVCE, Bangalore.
14. Seminar on ‘Introduction to Patenting’ for the faculty of Engineering colleges At National Law School, Bangalore, Nov,2012.
15. All India Seminar on New Frontiers in Food Engineering from 22-23rd of October 2010 at the Institute of Engineers, Bangalore
16. Attended faculty development programme on Teaching Engineering using LAB View by IUCEE from 28-30th June 2010 at RVCE
17. All India Seminar on Sensor and Sensor networks for monitoring air, water and Food pollution from 28-29th of May 2010 at the Institute of Engineers, Bangalore.
18. Faculty training programme conducted by NITTTR, Chennai at RVCE.
19. Seminar on Agricultural Biotechnology conducted by Monsanto India Ltd in March 2008
20. Workshop on Vermicompost production by Dept of Biotechnology, RVCE, Bangalore.

FDP/Workshops/ Seminars/ Symposium attended:

1. Attended Workshop on UHV from AICTE from 31st May to 4th June 2021
2. Attended ATAL workshop on Green composites- for sustainability conducted by NIT Meghalaya from 9th august to 13th of august 2021
3. Attended workshop on examination reforms conducted by AICTE from 26th to 28th July 2021
4. Attended ATAL workshop on Novel materials conducted by NIT Mizoram from 18 September to 22nd September 2021

Books/Book Chapter Published:

1. Dr Neeta Shivakumar and Kiruba Daniel, Nanomaterials in smart Food Packaging –Published in Handbook of nanomaterials for Industrial Applications by Hussain Chaudhary published by Elsevier in micro/nanotechnology series. Chapter15: 260-268. ISBN 978-0-12-813351-4

2. Biotechnology and crop improvement in Ginger –In Intech open in Studies on Ginger by Dr Haiping Wang ISBN:978-1-83880-030-7
3. Sudeep M, pratham kumar N, Raghav Raja and Dr Neeta Shivakumar .Synthesis and Biological Applications of PHA (Polyhydroxyalkanoates and PLA(Poly lactic acid) in 7th National conference on Emerging trends and New challenges in Biotechnology – Advances in Bioplastics by Dr P Balaji. ISBN No -978-93-5291-689-4, Pg:97-106 (2019)
4. Biotechnology and Crop Improvement of Ginger by Intech Open, 2019
5. Book chapter on Nanomaterials in Smart food packaging for Industrial applications published by Elsevier, Hussain, 2018.
6. Book chapter on Nanomaterials in Smart food packaging for Industrial applications published by Elsevier (in Press) 2017.

Interaction with Outside World:

1. Delivered an Invited talk for National Webinar series at Shri Govind Guru University, Gujarat on Introduction to Nanotechnology and its applications on October 26th 2021
2. BMSCE, Ilsc, University of Agricultural Sciences.

Funded Projects:

1. National Horticulture Mission (NHM) sponsored MODROB project on establishment of tissue culture lab for ginger research (2019-2020).
2. Design and fabrication of Mini PCR machine sponsored by KSCST (Karnataka State Council for Science and Technology) –2018 -2019 - Ref No. 42S_R_MTECH_012.
3. Consultancy project on Micropropagation of commercially important crop from Dscign Biosys. -(2018-2019).
4. Design of devices using Bionanomaterials in food packaging funded by Center of Excellence for Large Area Flexible MicroElectronics.
5. Executed the funded project (11.22 L) by VTU on “Crop Improvement of Ginger (*Zingiber officinale* L)”.

Patents:

1. **Neetha Shivakumar and Pushpa Agrawal**, Bioactive thin film for food packaging (Indian patent published -**201741044070**).

Awards:

1. **Best Researcher Award -2019** – awarded by Cognizant Technologies and RVCE-ISTE chapter
2. Awarded 2nd prize in the 7th National Conference on Emerging trends and New Challenges in Biotechnology- Advances in Bioplastic sponsored by DST _SERB held from 30 and 31st January 2019 held at MGR College, PG and Research Center in Biotechnology, Hosur
3. Awarded I prize in the International Conference on Structural Bioinformatics –Structure and Function of Macromolecules, for poster presentation.on 12 January 2008
4. Awarded Senior Research Fellow (CSIR) for Doctoral Degree programme. from 2002 -2005

Achievements/ Honours

1. Honoured by RSST as the Best achiever for publication of patent on Bioactive thin films for food packaging on 26th January 2020

2. Honoured by RSST for the extraordinary achievement on 26th January 2020
3. Honoured by RSST as the Best achiever for publishing Scopus indexed publication -2018 on 26th January 2019
4. Selected and participated as best innovation project from Department of Biotechnology, RVCE from EDC cell, RVCE on Biodegradable and Bioactive thin films in food packaging on 26-4-2018
5. Organised one day lecture series on Characterization of Nanomaterials on 28th 12- 2018 in association with Indian women Scientist Association (IWSA)
6. Co-ordinated for a workshop on Development of Biosensors from July 4th -9th July 2016
7. Organizing member for the International Conference on Smart materials held from 21st to 23rd October 2016
8. Delivered a talk on Novel applications of smart materials in FDP programme on smart functional textiles and apparel to combat extremities – A futuristic approach on 13th December 2016 at University of Agricultural Sciences, Dharwar as a part of winter school organised by ICAR.
9. Selected and participated in Visvesvarayya Technological T Museum – for the Innovative projects organised by Ministry of Science and Technology, Govt. Of India on Bioactive Thin films for food packaging
10. Organised a TEQUIP Workshop on Gene Cloning from 20th – 24th January 2014
11. Member of paper setting team for PG CET (Biotechnology) students on 29th June 2014
12. Worked as a Session coordinator for the International Conference on Large Area Flexible Microelectronics (ILAFM -2014) held from 18th to 20th Dec 2014
13. Chaired a session for the 7th International Conference on Environmental Research (ICER-14) held from 26 -28th Dec 2014.
14. Co-chaired a session for the 7th International Conference on Environmental Research (ICER -14) held from 26 -28th Dec 2014.
15. Selected and participated one of the best 24 innovations at the National level screened by ET now and Dupoint and telecasted in the programme Power of Shunya on Tissue culture of Ginger and a strategic Business plan for its commercialization.
16. Co-ordinated for proficiency course in Nanobiotechnology from 8 – 19th June 2010
17. Honoured by RVCE-ISTE chapter for achieving academic excellence and research through publications on September 9, 2008.