# Dr. Nagashree N Rao, Associate Professor

Dr. Nagashree N Rao, Associate Professor and HOD			A STATE OF THE PARTY OF THE PAR
Educational Qualification	MSc, MPhil, phD		
Experience	Teaching	15 Years	1000
	Research (along with teaching)	27 Years	
Area of Interest	Functional Genomics, Food Technology, and Biocomposites		
Date of joining RVCE	02-09-2009		
Email ID	nagashreenrao@rvce.edu.in		

# **Project Guided:**

Number of UG projects guided: 54

Number of PG projects guided: 12

Number of Phd students guiding: 03

Number of Phd students guided: 01

## No. of Publications:

National Journal: 02

National Conference: 37

International Journal: 28

International Conference: 14

#### **National Journals:**

- 1. Akshtha MD and Nagashree N Rao. A Comparative Metabolite Analyses of the Ethanolic Extract of Leaf and Corm of Colocasia esculenta L. by GC-MS. Indian Journal of Agricultural Biochemistry. 33(2) 197-200. 2020
- 2. Akshatha M D and Nagashree N Rao. Somaclonal Variations In Colocasia esculenta (L) Shott. Paripex Indian Journal of Research.. 7(12). 150-151.2018.

## **National conference:**

- 1. Dr. M Rajeswari, Dr. Anala M, Dr. Ashwani Sharma, **Dr. Nagashree N Rao**. Presented the prototype "PHYTOFILMAT- A clean India initiative for Atma Nirbhar Bharath". At Jnana- Vijnana -Tantrajnana Mela, Sri Adichunanagiri University on 19th and 20th of February 2024.
- 2. Puneetha. TR, Kantharaj D, Dr. Nagashree N Rao, Dr.Ashwani Sharma, **Nagashree N Rao**. Presented the prototype "Sukhadahi Sukh- The Smart enriched Curd". At Jnana- Vijnana -Tantrajnana Mela, Sri Adichunanagiri University on 19th and 20th of February 2024.
- 3. Development of a plant based nanobiochar filter for enhanced adsorption of pollutants. National Conference on nanomaterials driven advances in chemical and Biosensors. Allagappa University, Karaikudi.23-25th March 2022.
- Development of eco-friendly and biodegradable Bio-composites. National Conference on nanomaterials driven advances in chemical and Biosensors. Allagappa University, Karaikudi.23-25th March 2022.
- Pullulan- Metabolite from natural source, an alternative for food packaging. National Conference on nanomaterials driven advances in chemical and Biosensors. Allagappa University, Karaikudi.23-25th March 2022.
- 6. Morphogenetic and regeneration studies on Malbar nightshade, A leafy vegetable. National conference on advances in Microbial Biotechnology. Current trends and future prospects.28-29th April 2022
- 7. Nagashree N Rao: participated in Seven day webinar series on Sustainable Biosolutions 2020 held from 12th may to 18th May 2020 organised by VelTech R&D of science and technology.
- 8. Nagashree N Rao: participated in one day webinar on food industry prospect- post covid 2020. 25th May 2020. Organised by Department of Biotechnology, Sapthagiri College of Engineering.
- 9. Manjula R, Ashwani Sharma Nagashree N Rao.2020. "Overexpression of *ATPAL1* gene in *Decalepis* sp. an endangered medicinal plant". 107th Indian Science Congress, University of Agricultural Sciences, GKVK, Bengaluru, 3-7th Jan 2020. Plant Sciences-V016.
- 10. Manjula R, Nagashree N Rao and Ashwani Sharma.2020. "Overexpression of *CYP76AD1* gene in *Basella* sp. a leafy vegetable". 107th Indian Science Congress, University of Agricultural Sciences, GKVK, Bengaluru, 3-7th Jan 2020. Plant Sciences-V017.
- 11. Manjula R, Ashwani Sharma and Nagashree N Rao. 2019. Isolation and study of bacterial endophytes from Decalepsis hamiltonii an endangered and endemic medicinal plant. "Endophytes and their Applications in Agriculture", University of Agricultural Sciences, GKVK, Bengaluru, 24-26 Sep 2019.
- Manjula R, Ashwani Sharma, and Nagashree N Rao. 2019. Genetic transformation studies in an endangered *Hemidesmus indicus* (L) R. Br. "National Conference on New Trends in Bio-Technology & 14th Conference of Society of Cytologists and Geneticists", 6th -8th March 2019, BIET, Davanagere, page-43.
- 13. Ashwani Sharma, Manjula R and Nagashree N Rao. 2019. Genetic transformation studies in Basella spp. "National Conference on New Trends in Bio-Technology & 14th Conference of Society of Cytologists and Geneticists", 6th -8th March 2019, BIET, Davanagere, page-43.
- 14. Manjula R, Nagashree N Rao and Ashwani Sharma. 2019. In *vitro* flowering in *Basella alba* L. an edible Indian Spinach. 106th Indian Science Congress, Jalandhar 2019. Plant sciences-VII09, page-184.
- 15. **Nagashree N. Rao**, . Formulation of herbal cough syrup from indigenous plants. . Bengaluru Tech Summit, held at Bangalore Palace, 16th to 18th November 2017.

- 16. Rajeswari M and **Nagashree N. Rao**, Biosynthesis of multifunctional zinc oxide nanoparticles using Citrus fruit peel extract and its antimicrobial activity. Bengaluru Tech Summit, held at Bangalore Palace, 16th to 18th November 2017.
- 17. **Nagashree N. Rao**, .Preparation of energy bar for improved cognition through food to food fortification. Bengaluru Tech Summit, held at Bangalore Palace, 16th to 18th November 2017.
- 18. **Nagashree N Rao**: Invited talk on Functional Genomics. Lessons from *Arabidopsis thaliana*. National Conference on conservation, propagation and sustainable utilization of Medicinal plants. 20-21 January 2017. Gautham Buddha University, Greater Noida, UP.
- 19. Jayashree V, Keerthana, Ashwani Sharma and **Nagashree N Rao.** 2016. Elicitation studies in endemic medicinal plant, *Decalipes hamiltonii*. National Conference on new horizons in plant Biotechnology. Vellore Institute of Technology), Tamilnadu. March 11-12th 2016.
- 20. **Nagashree N Rao**. Invited talk Apoptosis during Development at National seminar on Modern Trends in Genetics and Molecular Biology, Government First grade College, Davangere, Karnataka on October 3rd 2015.
- 21. Smita Kavadikeri, <u>Nagashree N Rao</u> and Akshata M.D. Micropropagation studies of *Colocasia esculanta*. National level conference on Enzyme research in agriculture, food and Industrial Biotechnology (NCERAFIB-2015)12-13 March 2015. Maharani Science college for women, Bengaluru.
- 22. Neelima Rathi, Nagashree N Rao, and Ashwani sharma Regeneration studies on *Decalipis halmitonii* wight and Arn, threatened medicinal plant. National level conference on Enzyme research in agriculture, food and Industrial Biotechnology (NCERAFIB -2015) 12-13 March 2015. Maharani Science college for women, Bengaluru.
- 23. Neelima Rathi, Ashwani Sharma, T G Umesh and <u>Nagashree. N. Rao</u>. *In vitro* callus induction and elicitation studies in *Decalepis hamiltonii* Wight & Arn., a Threatened Medicinal Plant. National symposium- Biotechnologyy and Molecular biology for industry and common Man. XXXVI PTCA annual meet. 29th 31st January 2015, St Aloyius College, Mangalore.
- 24. Namratha N, UdayKumar , <u>Nagashree N Rao</u> and Rajashekar Reddy B H. Tissue specific expression of *PMIT* gene in crop seeds. Two day conference on advances in research and development and dissemination of Interdisciplinary developments for sustainability, 25-27 April 2015. R V college of Engineering, Bengaluru.
- 25. Pavana Thomas, Sweta Srivastava, <u>Nagashree N Rao</u> and Sudhir Krishna. Developing a Culture System for Cervical Carcinoma that Closely Resembles Tumor Properties *in-vivo*. Two day conference on advances in research and development and dissemination of Interdisciplinary developments for sustainability. 25-27 April 2015. R V college of Engineering, Bengaluru.
- 26. Yashaswini Ullal, Sweta Srivastava, <u>Nagashree N Rao</u> and Sudhir Krishna. Copy Number Variation (CNV) Analysis of Chronic Myeloid Leukemia (CML) Patients and Enrichment of CML Stem Cells. Two day conference on advances in research and development and dissemination of Interdisciplinary developments for sustainability. 25-27 April 2015. R V college of Engineering, Bengaluru.
- 27. ShreyanshTewari, Sunidhi C Shetty, Swathi HP, Vishal R, **Nagashree N Rao** and Ravindra S Kulkarni. Presented a poster on "Production of Enriched Yoghurt powder". Scoftech 2014 organised by Ministry of Food processing Industries, India at Thanjavur. February 2014.
- 28. ShreyanshTewari, Sunidhi C Shetty, Swathi HP, Vishal R, Nagashree N Rao and Ravindra S Kulkarni. Won the Best Poster Award titled "Production of Functional Food". National Conference held at Jain University. February 2014.

- 29. Preethi, Swati Sharma, Ankitha and **Nagashree N Rao**. **Won 2nd prize** by presenting a paper on "Removal of Cadminum using Carbonized Kapok Fibres" Blueprint-Engineers 2013 held at NITK Suratkal, Karnataka. October 2013.
- 30. Devaki Mady, Poorna P, Surabi, Akansha and **Nagashree N Rao**. Won First prize for the presenting the paper titled *In vitro* callusing of Decalipes in Blueprint-Engineers 2013 held at NITK Suratkal, Karnataka. October 2013.
- 31. ShreyanshTewari, Sunidhi C Shetty, Swathi HP, Vishal R, **Nagashree N Rao** and Ravindra S Kulkarni. Functional foods for Malnourished kids. Blueprint-Engineers 2013 held at NITK Suratkal, Karnataka. October 2013.
- 32. **Nagashree N Rao**, Umesh T G, Ashwani Sharma and S Mahesh "*In vitro* production of multiple plantlets and metaboloite studies in *Bacopa monneri* (L) Pennel, an important nootropic plant" in National conference on "Integrative Plant Biology and Agribiotechnology" held at Karnataka state higher education council organized by Tumkur university and KSHEC at Bangalore on 29th February 2012.
- 33. **Nagashree N Rao,** Umesh T G, Anila Rani P "*In planta* genetic transformation in *Arachis hypogea*" in National conference on "Integrative Plant Biology and agribiotechnology" held at Karnataka state higher education council organized by Tumkur university and KSHEC at Bangalore on 29th February 2012.
- 34. Ann Z, Akul H, Banushree K, Sandeep K and Nagashree N Rao presented "Physiochemical properties of yoghurt enriched with fruits" at Bio-trends 2012 at IIT Chennai Judged best project
- 35. Ann Z, Akul H, Banushree K, Sandeep K and Nagashree N Rao presented titled" oligoleptic properties of fruit enriched Yoghurt" at Recent advances in Nutaceuticals and food safety on 4th October 2012 organised by Tumkur University. Judged best poster award.
- 36. Ashwani Sharma, **Nagashree N Rao**, Rajesh VV, Krupashankar MS, Satyanarayana BS, Ravindra S Kulkarni, Oral presentation at National Conference on food Safety and Nutraceuticals "Recent Advances in Nutraceuticals and Food safety "Production of bioethanol from the peels of banana and pine apple, organised by Tumkur university held at 04th October 2012.
- 37. Pushpa Agrawal, **Nagashree N. Rao**, Chanda ,Divya Rao, Rachna H Reddy, Anita Raj, Ananthnag "Characterization of nanosericin particles obtained from split cocoons and the antimicrobial assay of sericin obtained from silk waste" in national conference on "Social Relevance of Nano- Materials and Applications An Interdisciplinary Approach [SNAIA-2011]" held at Karnataka state higher education council organized by Tumkur university and KSHEC at Bangalore on 31st December 2011.

## **International Journal:**

- Manjula Ranganatha, Nagashree N Rao, Parvatam Giridhar, Ashwani Sharma Micropropagation and in vitro flowering in Basella alba, Plant Cell Tissue and Organ Culture 154(1):1-9, 2023. DOI:10.1007/s11240-023-02515-5.
- 2. Bhavana Veerabhadrappa, Sudharshan SJ, **Nagashree N. Rao** and Madhu Dyavaiah Loss of tRNA methyltransferase 9 and DNA damage response genes in yeast confers sensitivity to aminoglycosides. FEBS Letters (2023). doi:10.1002/1873-3468.14591.
- 3. Jemima Princillya Bhavana Veerabhadrappaa,, **Nagashree N. Rao**, and Madhu Dyavaiah. Cellular senescence in aging: Molecular basis, implications and therapeutic interventions. Advances in Protein Chemistry and Structural Biology. Elsevier (2023). ISSN 1876-1623, https://doi.org/10.1016/bs.apcsb.2023.02.021

- 4. Monica Puttaswamy, **Nagashree N Rao**, Ashwani Sharma Novel mechanisms of ε-poly lysine as a antimicrobial agent and its food preservative application: ε-poly lysine as a antimicrobial agent, Archives of Ecotoxicology 4(3):90-93, 2022.
- M. Rajeswari, Nagashree N. Rao, Ashwani Sharma. Design and Performance Assessment of Zinc Oxide–Chitosan Nanocomposite Filter for Continuous Removal of Textile Azo Dye. Topics in Catalysis. https://doi.org/10.1007/s11244-022-01683-6, 2022.
- 6. Rajeswari. M, Pushpa Agrawal, Nagashree N Rao, Ashwani Sharma, Lingayya Hiremath, Tippareddy K S, Shivandappa. Modelling and efficiency assessment of the up flow fixed bed process packed with Moringa oleifera for continuous Cd(II) removal from drinking water. Journal of Molecular Structure 1236, 130328, 2021.
- Nagashree N Rao , Ashwani Sharma , Anala M R , Aishwarya Rajana , Prutha Vijaykumar , Nipun S and Sohan M. Predictive Modeling of Different Treatments for Physiological and Nutritional Parameters of *Ocimum sanctum*. ECS Trans. 107 11189 2022.
- 8. Rajeswari. M, Lingayya Hiremath, , Anubha Samadder, Satheesh Babu Gandla, Nagashree N Rao and Ashwani Sharma. An architectural avenue of electro-optical biosensor activities for the detection of formalin adulteration in preserved foods packaging. 2021. Mazedan Chemical research Journal. 2(1).
- 9. K Mugdha Bhat, Jyothsana R, Ashwani Sharma, Nagashree N Rao (2020). Carrageenan-based edible biodegradable food packaging: A review. International Journal of Food Science and Nutrition. 5(4):69-75.
- 10. Manjula Ranganatha, Annapurna AS, Ashwani Sharma, Nagashree N Rao (2020). In vitro shoot regeneration of swallow root (*Decalepis hamiltonii*) a steno-endemic red listed medicinal plant. Asian Journal of Pharmaceutical and Clinical research. Vol 13, Issue 4, 188-191.
- 11. Ashwani Sharma, Nagashree N Rao and M S Krupashankara. Development of Eco-friendly and biodegradable Bio composites. Materials Today Proceedings (5) .20987-20995. 2018.
- 12. Anjali Shenoy, Chandan Reddy, Sree Padma, Vidya Niranjan and Nagashree N Rao. Evluation of alterative bio-receptors for pesticide detection. Materials Today Proceedings (5), 20977-20950, 2018.
- 13. Akshatha M D, Smitha K and Nagashree N Rao. In Vitro Micropropgation and Antioxidant assay in *Colocasia esculenta*. Plant Tissue culture and Biotech 28(2) 183-190 2018.
- 14. Neelima Rathi, Keerthana Harwalkar, Jayashree V, Ashwani Sharma, **Nagashree N** Rao (2017). 2-Hydroxy-4-Methoxybenzaldehyde, an astounding food flavoring metabolite: a review. Asian Journal of Pharmaceutical and Clinical research. Vol 10 (10): 105-110.
- 15. Anjali Shenoy, Chandan M. Reddy, Shree Padma M, Vidya Niranjan, Nagashree N.Rao. Evaluation of alternative enzymatic receptors for pesticide biosensors. Accepted in Materials Today: Proceedings.
- 16. Ashwani Sharma, Nagashree N Rao, M S Krupashankara. Development of ecofriendly and biodegradable biocomposites. Accepted in Materials Today: Proceedings.
- 17. Neelima Rathi, **Nagashree N Rao**, Seema Dwivedi (2017) Impact of Elicitors in the improvement of Glycyrrhizin production in the cell suspension cultures of Glycyrrhiza Glabra L. Biochem cell Arch, 17, 01, 367-371.
- Neelima Rathi, Nagashree N Rao, Seema Dwivedi, Sarita arya, I D Arya. (2017) Optimization of media constituents for regeneration via callus cultures of Glycyrrhiza glabra L an endangred plant. Biochem cell Arch, 17, 01, 389-398.
- 19. Vidyashree S., Vijaya Holla, Vivek A., M. S. Krupashankara, **Nagashree N. Rao** (2016). Evaluation of Oil-Sorption Properties of Kapok Fiber for Cooking Oils: A Potential Check for Oil-ridden Wastewater from Restaurants. Journal of Water Pollution & Purification Research. Volume 3(3). 15-22.

- 20. Nishita Shukla , **Nagashree N Rao** and Ashwani Sharma (2016). Micropropogation and elicitation studies in *Aloe vera*. Asian Journal of Pharmaceutical and Clinical research. Vol 9 (5): 1-7
- 21. Umesh T G, Ashwani Sharma, and **Nagashree N Rao**. 2013. Regeneration potential and major metabolite analysis in nootropic plant-*Bacopa monnieri* (L.) Pennell. Vol 7, Issue 1, 134-136.
- 22. Swati Sharma, Preethi B, Ankitha N and **Nagashree N Rao**. 2014. Evaluation of Kapok Fiber as Oil Adsorbent. Proceedings of International Conference on Clean Green and Sustainable Technology in Biotechnology and Chemical Engineering. STM Journals 55-61.
- 23. T G Umesh and **Nagashree N Rao**.2014. An efficient and improved method of *in planta* transformation in *Arachis hypogaea*. L. Int. J. Life. Sc. Bt & Pharm. Res. Vol. 3, No. 4,166-173.
- 24. Anila Rani P, Choudary G V, Mahesh S, Narendra Kumar S, **Nagashree N Rao**, Praveen Kumar Gupta, Rajeswari M, Production of *Pencillin acylase* using mutant *Escherchia ccoli* strain. International Journal of Bio-Engineering Science and Technolgy, Vol 3, Issue 01, 2012
- 25. **Nagashree.N.Rao**, Kalika Prasad , Puja Ravi Kumar and Usha Vijayraghavan (2008). Distinct regulatory role for RFL, the rice LFY homolog,in determining flowering time and plant architecture. Proc Natl Acad Sci USA. 105 (9): 3646-3651.
- 26. **Nagashree N. Rao,** Kalika Prasad and Usha Vijayraghavan (2008) The making of a bushy grass with a branched flowering stem, Key rice plant architecture traits regulated by RFL the rice LFY homolog .Plant Signaling & Behavior 3:11, 981-983.
- 27. Ranganath.R.M. and **N.R.Nagashree.** 2000. Selective cell elimination during microsporogenesis in Sedges, Sexual plant reproduction.113; 53-60.
- 28. Ranganath.R.M and **N.R.Nagashree** 2001. Role of programmed cell death in development. International review of cytology. 202; 159-242.

#### **International conference:**

- 1. **Nagashree N Rao** attended IEEE International Conference on High Performance Computing, Data, and Analytics. At Goa from December 18 to December 21, 2023.
- 2. Increasing the sorption capacity of plant based biofibers by functionalization at International conference on advances and innovations in Biotechnology and allied Sciences at Chandigarh University, 25-25th March 2022.
- 3. Enhancement of 2-hydroxy-4-methoxybenaldehyde (HMB), through over expression of *Arabidopsis thaliana PAL (AtPAL)* gene in *Decalipes hamiltonii* at International conference on advances and innovations in Biotechnology and allied Sciences at Chandigarh University, 25-25th March 2022.
- 4. Development of pullulan based biofilms for food packaging. at International conference on advances and innovations in Biotechnology and allied Sciences at Chandigarh University, 25-25th March 2022.
- 5. *In vitro* flowering in *Basella* sp. A leafy vegetable. at International conference on advances and innovations in Biotechnology and allied Sciences at Chandigarh University, 25-25th March 2022.
- 6. Nagashree N Rao: participated in One Week Live Webinar Series of International E-Conference in Plant Sciences' held at Department of Studies in Botany, Davangere University, Shivagangothri, Davangere-577007, Karnataka, India on 25th 30th May 2020.
- 7. Presented and published in International E-Conference on 'Advances and Future Outlook in Biotechnology and Crop Improvement for Sustainable Productivity' organised by the Department of Biotechnology and Crop Improvement, College of Horticulture, Bengaluru during 24-27th November, 2020.
- 8. **Nagashree.N Rao**: Invited Talk on Genetic transformation and elicitation studies in *Decalipes hamiltonii*, an endemic medicinal plant. International conference on recent trends in Agriculture, Biotechnology and food processing. July 5-7th 2017. University of Agricultural Sciences. Hassan.

- 9. Neelima Rathi, **Nagashree N Rao**, and Ashwani Sharma Invitro callus Induction and Elicitation Studies on Decalepis Halmitonii-Neelima Rathi, Nagashree N Rao, and Ashwani Sharma. INDO-FRENCH CEFIPRA Seminar on Women in Science. 3-5 Feb 2015 held in Indian Institute of Science, Benagluru.
- 10. Preethi, Swati Sharma, Ankitha and **Nagashree N Rao.** Presented a paper on "Evaluation of Kapok fibre as oil adsorbent" in International conference on Green and Clean technologies in Chemical Engineering and Biotechnology (ICGCT-2014) at SIT, Tumkur. February 2014
- 11. Preethi, Swati Sharma, Ankitha and **Nagashree N Rao**. Presented a poster on "Carbonised Kapok fibres as potential adsorbent of Heavy metals" and "Design and Development of Bio-sorbents for oil adsorption" in 2nd International Conference on Agricultural and Horticultural Sciences (Omics group) in Radisson Blu plaza Hotel at Hyderabad. February 2014.
- 12. Shreyansh Tewari, Sunidhi C Shetty, Swathi HP, Vishal R, **Nagashree N Rao** and Ravindra S Kulkarni. Presented a poster on "Manifestation of enriched Yoghurt" in 2nd International Conference on Agricultural and Horticultural Sciences (Omics group) in Radisson Blu plaza Hotel at Hyderabad. February 2014.
- 13. Preethi, Swati Sharma, Ankitha and **Nagashree N Rao.** Presented a paper on "Bioremediation of Heavy metals using Carbonized Kapok Fibres" in International of Biotechnology and Human Welfare (ICBH 2013) at Thanjavur, Tamilnadu. December 2013.
- 14. Ashwani Sharma, **Nagashree N Rao**, Rajesh VV, Krupashankara MS, Satyanarayana BS, Ravindra S Kulkarni, Paper presentation at International Conference on Recent Advances and Challenges in Biotechnology (ICRACBT-2012), "Production of cellulosic ethanol from fruit peel waste biomass", organized by Department of Biotechnology Engineering, NMAM Institute of Technology, Nitte, held at 27th -29th December 2012.

# FDP/Workshops/ Seminars/ Symposium attended:

- 1. Nagashree N Rao attended Brand Bengaluru Conclave at City University, Bengaluru. 09 Oct 2023.
- 2. Nagashree N Rao attended TRIZ fest 2023. Royal Orchid, Bangalore on 15-16th September 2023.
- 3. Nagashree N Rao attended Nano-startup Workshop at MineRVa, RSST on 5-6th September 2023
- 4. Nagashree N Rao attended Seminar on Green Bengaluru at RVCE on 9.08.2023
- 5. **Nagashree N Rao.** attended NAAC Accreditation: Focused Preparation & Improved Performance on 03.06.2023
- 6. Attended AICTE sponsored Online Short Term Training Programme on "Functional Metagenomics and Bioprocessing of Therapeutic Enzymes" organized by the Department of Biotechnology, Sri Venkateswara College of Engineering from 22.02.2021 to 27.02.2021
- 7. Attended AICTE Training And Learning (ATAL) Academy Online FDP on "Photonics" from 3rd to 7th November 2020 conducted by Indian Institute of Information Technology Ranchi.
- 8. Attended FDP conducted by AICTE on Inculcating Universal Human Values in
- 9. Technical Education" organized by All India Council for Technical Education (AICTE) from 17 May, 2021 to 21 May, 2021.
- 10. Attended advanced research pedagogy development programme organized by international academy for competency enhancement, held at Eagleton resort, Bengaluru during 27-28th March 2017.
- 11. Attended workshop. 'ISO-9001: 2015 QMS-Lead Auditor Training (CQI-IRCA-UK Certified)' [Code: QP5010]' from 19th to 23rd Dec. 2016, to held at Engineering Staff College of India, Hyderabad.
- 12. Attended Sponsored one week National Level Workshop on "Thin Film Fabrication Techniques" during 6th -11th June 2016. R V College of Engineering.

- 13. Attended Global Biotechnology Summit on 5-6th February 2016, Organized by Department of Biotechnology, Ministry of Science and Technology, Govt of India.
- 14. Attended one day seminar on Sustainable Scientific Farming held at Jnana Jyothi Auditorium, Central College, Bengaluru. on 25th Feb. 2016
- 15. One day workshop on "Sensors, systems for ICT enabled agriculture". Organized by TEQIP COE 1.2.1) in association with KSSRDI on March 27, 2015, RVCE, Bengaluru.
- 16. 15 days training course on "Physiological and molecular approaches to improve drought adaptation of crops: from feb 24 to 10th march, 2014. Organized by Department of Crop Physiology, GKVK, UAS, Bangalore supported by Niche area of excellence, ICAR, New Delhi.
- 17. Participated in three day workshop on "Scanning Electron Microscope" from 8th to 10th April 2013 conducted by Department of Mechanical Engineering, RVCE under TEQIP II Grant.
- 18. Part of the organizing Committee for the TEQIP II sponsored workshop on "Advanced Materials Characterization and Analyses" jointly organized by Departments of Mechanical Engineering, Physics, Chemistry and Biotechnology. 2013
- 19. Participated in three day Workshop on "Induction programme for the newly recruited engineering college teachers" held at AMC Engineering College, Bangalore from April 21st to 23rd April 2012.
- 20. Participated in one day national symposium on "Sustainability in food and Agriculture technology" (SiFAT 2012) organized by Department of Biotechnology, R V College of Engineering, Bangalore.
- 21. Participated in 8 day workshop on "Hands on workshop on emerging model systems to study stem cell biology" Conducted by Institute for stem cell biology and regenerative medicine (inSTEM), National Centre for biological Sciences (NCBS), Bangalore from 1st to 8th October 2011.
- 22. One day workshop on "DBT-Mentorship workshop" at NCBS, Bangalore on 22 November 2011.
- 23. Participated in one day workshop on "e-waste recycle and waste management" held on 20th March 2010, at RVCE
- 24. Participated in four day workshop on "Biologically Inspired Computing" Organized by VTU elearning centre, Mysore from June 7th to 10thJune 2010.
- 25. Participated in one week training program on Animal cell culture in collaboration with Oct Therapies at RVCE, Bangalore from 1-7 June 2011.

## **Books/ Book Chapters Published:**

- 1. Kausthubh Sumanth, Sanjana Subramanya, Sourav Umashankar, Supriya Gummalam, Rajeswari Mallikarjunaiah, Ashwani Sharma and Nagashree Nagaraj Rao. Revisiting Microalgae as an Additive for Nutraceuticals: A Review. In Progress in Microalgae Research. Edited by Leila Queiroz Zepka, Eduardo Jacob-Lopes and Mariany Costa Deprá 2022. In Tech Publishers.
- M. Rajeswari, Nagashree N. Rao, Tanmay Agarwal, and S. Kavyasree, Green Synthesis of Zinc Oxide Nanoparticles Using Citrus Sinensis (Orange) Peel Extract for Achieving Ultraviolet Blocking Properties, 2022, ISBN 978-981-19-6023-9. Springer Nature. https://doi.org/10.1007/978-981-19-6024-6.
- 3. Eco- friendly and Biodegradable green composites. Nagashree N Rao, Rajeshwari M and Ashwani Sharma In Biocomposites (Ed- Brajesh Kumar), Publisher. Intech open. 2021
- 4. Thejavathi.D.H. and Nagashree.N.Rao(1997).Comparative studies between normal and tissue cultured plants of Bacopa monnieri (L) Pennel. In Irfan.A.Khan and Atiya Khan (eds). Role of Biotechnology in medicinal and aromatic plants. 234-253.Ukas Publications.

#### **Interaction with Outside World:**

- 1. Development of a plant based nano-biochar filter for enhanced adsorption of pollutants. World water day Conclave, SPC Govt College, Ajmer.
- 2. TRENDS AND AVENUES IN BIOTECHNOLOGY-THE SCIENCE FOR GENX at Delhi School as a part of orientation program for 12 Std students.
- 3. Expert member for the VTU research Committee to scrutinize the applications for selecting VTU PhD guides.
- 4. VTU Expert committee member to select VTU PhD Candidates
- 5. Member of VTU BOS and is actively involved in framing scheme and syllabus for Biotechnology, Bioinformatics both at UG and PG level.
- 6. Involved in Framing Scheme for M.Tech Food Technology.
- 7. Member of VTU BOE.
- 8. Membber of BOS for NMKRV College for Women and is actively involved in framing scheme and syllabus for BSc Biotechnology.
- 9. CFTRI, St Johns Hospital, University of Agricultural Sciences, Bangalore University Gauhathi University, Karnatak University, Dharwad, Karnataka State Pollution board.
- 10. Development of a plant based nano-biochar filter for enhanced adsorption of pollutants. World water day Conclave, SPC Govt College, Ajmer.
- 11. TRENDS AND AVENUES IN BIOTECHNOLOGY-THE SCIENCE FOR GENX at Delhi School as a part of orientation program for 12 Std students.
- 12. Invited talk on "Nutrigenomics –What we eat is what you are" at MES college of arts, commerce and Science on 11th July 2020.
- 13. Invited talk on Nutrigenomics: at NMKRV College, Bengaluru. 25th March 2017
- 14. As a resource person delivered lecture on **Gene Expression and Regulation in Prokaryotes and Eukaryotes.** Five-day in-house, orientation programme in Biology for Government and Aided P U College lecturers from 18/12/2016 to 22/12/2016 at Acharya Institute, Soladevanahalli, Bengaluru under Biology Orientation Programme conducted by Department of Pre-University Education, Malleswaram, Bengaluru.

## **Funded Projects:**

- 1. DBT Funded Project- Regulation of xanthosine metabolism and its effect on caffeine biosynthesis in coffee plants 33.3 L
- 2. DBT: Funded project entitled "Functional characterization of the regulatory genes involved in pungency in Capsicum sp. " under DBT's Twinning Programme for NER. 11.64 L
- 3. AICTE: Development of Natural fiber based oil adsorbent for commercial and industrial applications.-7.53L
- 4. KAFIFIL- KAPOK FIBRE BASED FILTER, Make in India initiative. KSTA 0.7 L
- 5. Principle Investigator AICTE-7,64 Lakhs: Development of natural fiber based oil adsorbent for commercial and industrial applications.
- 6. Principal Investigator UGC- 10.08 lakhs (2013-2016). Micropropagation and metabolic characterization of *Colacasia esculenta*.
- 7. Principal Investigator DBT- 34.50 Lakhs ( 2014-2017). *Agrobacterium* mediated genetic transformation and Overexpression of *Arabidopsis thaliana PHENYLALANINE AMMONIA LYASE* (ATPAL) in *Decalepis hamiltonii*.
- 8. Co-Investigator: Investigations on metabolite profile and betalains biosynthesis in *Basella* spp, An edible leafy vegetable. DBT 18.86 Lakhs.
- 9. Co Investigator- NMFP. 4.0 Lakhs. Bio-inspired computing for the analysis of pectin in citrus fruits.

- 10. Co- Guide: Development of Ecofriendly mosquito repellent. KSCST- 5 thousands.
- 11. Co- Guide: Production of Designer Foods- Yoghurt. KSCST-4 thousands.
- 12. Co- Guide: Generation of bioelectricity using Microbial Fuel Cells. KSCST-4 thousands.
- 13. *Guide: Agrobacterium tumefaciens* mediated genetic transformation of *Arachis hypoaea* (ground nut). KSCST-7 thousands.

#### Awards:

- Mentor for the project titled "Biofill Filter- Sustainable Leap towards Water sanitation for make in India Initiative / Aatmanirhbar Bharath". Judged the best project. Awarded Padma shri S K Shivakumar Prize 2023-24 by Karnataka Science and Technology Academy (KSTA). The award included a cash prize of 10 thousand and a certificate.
- 2. **Mentor for the project PhytofilFOG:** Judged the winner under INNOVATION at Grand challenge Finale, National Institute of Engineering and Technology (NIET), Greater Noida with AICTE, New Delhi as Knowledge partner on 27th and 28th of October 2023. 630 teams had registered, after two rounds. 28 teams were selected for Grand challenge Finale. The award included a cash prize of Rs 75 thousand, momento and a certificate.
- 3. **Mentor for the project SukhaDahiSukh** Judged the **Front Runners** at Grand challenge Finale, National Institute of Engineering and Technology (NIET), Greater Noida with AICTE, New Delhi as Knowledge partner on 27th and 28th of October 2023. **The award included a momento and a certificate**.
- 4. SPANDAK- A Pulsator towards clean India initiative for AtmaNirbhar Bharath. Srishti. Engineering students project exhibition competition. 25th- 27th July 2022 in Bangalore. The project was awarded third best project of the year 2022 for its innovation
- 5. Career Advancement award from DBT( BioCARE-RGO) 2014 with honarium of 10 thousands per month
- 6. KSCST- Guide for Best student project for the 2010 and 2015
- 7. DBT- Post Doctoral Fellow, CSIR-Research Associate, Post Doctoral research at Indian Institute of Science.
- 8. The student project titled KAFIFIL A leap towards swach bharat and make in India exhibited the prototype at state level technical fest, Srishti 2017 organized by ABVP at R V College of Engineering. Guided the students along with Dr M S Krupashankara and Dr Ashwani Sharma, the project won the third best prize.
- 9. Cleared the exam 'ISO-9001: 2015 QMS-Lead Auditor Training (CQI-IRCA-UK Certified).

## **Patents:**

- 1. **Nagashree N Rao,** Ravindra S Kulkarni, <u>Ashwani Sharma</u>, B S Satyanarayana. An apparatus and a method for the preparation of functional foods (Indian patent filed -5777CHE/2015).
- 2. **Nagashree** N Rao, Ravindra S Kulkarni, <u>Ashwani Sharma</u>, B S Satyanarayana. Preparation of corn enriched yoghurt spread (Indian patent filed-5778 CHE/2015).