

**Name : Dr.M.Shanmugavadivu**



**Designation** : Professor

**Department** : Biotechnology

**Qualification** : M.Sc., M.Phil., Ph.D., PGDCRDM., SET

**Experience** : Teaching : 16.4 Years Industry : - Research : 7 Years

**Area of Specialization(s)** : Nanotechnology

**Email (Official ID)** : shanmugavadivu@drngpasc.ac.in

#### Academic Qualifications

Degree	Branch	Institution / University Name	Year of Graduation
Ph.D.	Biotechnology	Dr. N.G.P. Arts and Science College, Coimbatore	2019
M.Phil.	Biotechnology	Bharathidasan University, Trichy	2007
M.Sc.	Biotechnology	Kongunadu Arts and Science College, Coimbatore	2004
B.Sc.	Biochemistry	Vellalar College for Women, Erode	2002

#### Additional Qualifications

Diploma / Vocational / Certification	Area of Specialization	Institution / University / Agency Name	Year
SET	Life Science	Mother Teresa Womens University	2018
Online Certificate	Stress Management	NPTEL	2018
Online Certificate	Introduction to Research	NPTEL	2019
Online Certificate	Cell Biology: Cellular Organization, Division	NPTEL	2022

	& Process		
Online Certificate	Genetic Engineering: Theory and Applicatiobs	NPTEL	2022
Online Certificate	Molecular Basis of Inheritance	Infosys Spingboard	2022
Online Certificate	Environmental Biotechnology	NPTEL	2023

#### Grants Received

Event Title	Agency	Amount	Date
-	-	-	-

#### Projects

##### Completed

Project Title	Agency	Amount	Duration
-	-	-	-

##### On-going

Project Title	Agency	Amount	Duration
Seed Money	Dr.N.G.P. Arts and Science College, Coimbatore	Rs. 1,08,250/-	1 year

#### Research Guidance

Programme	No. of Scholars	
	Completed	Pursuing
Ph. D.	-	-
M. Phil.	-	-

## Research Publications (Indexed)

### International

1. Neya varshini Radhakrishnan, Keerthiga Sivasamy, **Shanmugavadivu. M.** 2023. Therapeutic Applications of Seed Oil- A Review. **International Journal of Creative Research Thoughts (IJCRT)**. 11(7):907-912. (ISSN: 2320-2882) (UGC Approved)
2. S. Keerthiga, Neya varshini R, **M.Shanmugavadivu.**2023. Formulation and Evaluation of Herbal Toothpaste. **Journal of Emerging Technologies and Innovative Research (JETIR)**. 7(10):264-269. (ISSN: -2349-5162). (UGC Approved)
3. Kiruba M, Anandhi K, **Shanmugavadivu M.** 2023.Purification and Characterization of Keratin from Chicken Feather. **International Journal of Creative Research Thoughts (IJCRT)**. 7(11): 679-687. (ISSN: 2320-2882) (UGC Approved)
4. Anandhi K, Kiruba M, **Shanmugavadivu M.** 2023.Formulation and Evaluation of Anti-Acne Cream using *Euphorbia hirta* leaf Extract.**International Journal of All Research Education and Scientific Methods (IJARESM)**. 6(11):2078-2088.(ISSN: 2455-6211). (UGC Approved)
5. Kiruba M and **Shanmugavadivu M.** 2023. Application of keratin-A review. **Journal of Emerging Technologies and Innovative Research (JETIR)**. 4(10): 69-74. (ISSN: -2349-5162). (UGC Approved)
6. Anandhi K, **Shanmugavadivu M.** 2023. Formulation and Evaluation of Herbal AntiAcne Cream -A Review. **International Journal of Enhanced Research in Science, Technology & Engineering**. 12(3): 106-110. (ISSN:2319-7463). (UGC Approved)
7. Ashwini Subramani and **Shanmugavadivu Muthusamy.**2023. Production of Vinegar From Fruit Pulp and Peels – A Review. **International Journal of Novel Research and Development**. 8(3): 10-12. (ISSN:2456-4184). (UGC Approved)
8. **Shanmugavadivu Muthusamy.** 2022. Anticancer activity of Silver Nanoparticles synthesized using *Citrus reticulata* fruit peel Aqueous Extract. **International Journal of Research and Analytical Reviews (IJRAR)**. 9(3): 786-791. (E-ISSN 2348-1269, P-ISSN 2349-5138). (UGC Approved)
9. **Shanmugavadivu Muthusamy,** Shalini Devaraj. 2022. Therapeutic Applications of *Citrullus lanatus* seed oil- A mini review. **Gradiva Review Journal**. 8(7): 1237-1240. (ISSN: 0363-8057). (UGC CARE II Journal).

10. **Shanmugavadivu Muthusamy**, Shalini Devaraj. 2022. Antioxidant and Radical Scavenging Activity of Silver Nanoparticles Synthesized by *Punica granatum* Fruit Peel Extract. **Gradiva Review Journal**. 8(2): 193-200. (ISSN: 0363-8057). (UGC CARE II Journal).
11. **Shanmugavadivu Muthusamy**. 2022. Hibiscus sabdariffa LINN. – A Potent Medicinal Plant. **International Journal of Research and Analytical Reviews (IJRAR)**. 9(1): 144-148. (E-ISSN 2348-1269, P- ISSN 2349-5138). (UGC Approved)
12. Mahalakshmi B, Rathinasamy Baskaran, **Shanmugavadivu M**, Ngoc Tuan Nguyen and Bharath Kumar Velmurugan. 2020. Insulinoma-Associated protein 1 (INSM1): A potential biomarker and therapeutic target for neuroendocrine tumors. **Cellular Oncology**. 43(3):367-376. (ISSN: 2211-3428). (Scopus Indexed Springer Journal).
13. Soundarya Dhandapani and **Shanmugavadivu Muthusamy**. 2020. Gelatin: Sources, Extraction, Properties and Its Applications - A Review. **International Journal of All Research Education and Scientific Methods (IJARESM)**. 8(6): 304 – 311. (ISSN: 2455-6211) (UGC Approved)
14. Renuga Devi S, **Shanmugavadivu Muthusamy**, Karthikeyan V, Soundarya D and Rathika S. 2020. Rhizobium as Bio Fertilizer -A Review. **International Journal of Research and Analytical Reviews (IJRAR)**. 7(2): 256-259. (ISSN: 2349-5138) (UGC Approved)
15. Pham Anh Duca, P. Dharanipriya, Bharath Kumar Velmurugan, **M. Shanmugavadivu**. 2019. Groundnut shell -a beneficial bio-waste. **Biocatalysis and Agricultural Biotechnology**. 20(101206). (ISSN: 1878-8181) (Scopus Indexed Elsevier Journal).
16. Venkatachalam Angamuthu, **M. Shanmugavadivu**, G. Nagarajan, Bharath Kumar Velmurugan. 2019. Pharmacological activities of antroquinonol- Mini review. **Chemico-Biological Interactions**. 297:8-15. (ISSN: 0009-2797) (Scopus Indexed Elsevier Journal, Impact factor of 3.296).
17. Shibu Marthandam Asokan, Ravichandran Mariappan, **Shanmugavadivu Muthusamy**, Bharath Kumar Velmurugan. 2018. Pharmacological benefits of neferine - A comprehensive review. **Life Sciences**. 199: 60-70. (ISSN: 0024-3205) (Scopus Indexed Elsevier Journal, Impact factor of 2.936).

18. **Shanmugavadivu, M** and Selvam Kuppasamy. 2017. Green synthesis of silver nanoparticles using *Citrus reticulata* fruit peel aqueous extract and their antibacterial activity. **International Journal of Advanced Research**. 5(4): 700-708. (ISSN: 2320-5407) (UGC Approved Listed in 2017)

#### **Other Publications: International / National Journals**

1. Sreelakshmi P, Vasumathi S, **M. Shanmugavadivu**. 2024. Green Synthesis of Silver Nanoparticles from *Moringa oleifera* Seeds and Its Application in Water Purification. **International Journal Of Novel Research And Development**. 7(9): e78-e91. (ISSN: 2456-4184) (UGC Approved).
2. Rose Mary Sunny, R. Arthi, **M. Shanmugavadivu**. 2024. Purification and Partial Characterization of Anti-Microbial Peptides Produced by *Bacillus licheniformis* Isolated from Curd. **International Journal Of Novel Research And Development**. 7(9): f177-f184. (ISSN: 2456-4184) (UGC Approved).
3. Dhanalakshmi K, Seethadevi P, **M. Shanmugavadivu**. 2024. Phytochemical Screening and *In-Vitro* Pharmacological Evaluation of *Leucas aspera* Leaves. **International Journal Of Novel Research And Development**. 7(9):e325-e331 (ISSN: 2456-4184) (UGC Approved).
4. Niveda K, Manisha B.P., **M. Shanmugavadivu**. 2024. Preparation Of Chitin Nanowhiskers Using *Pleurotus ostreatus* and its Application in Dye Removal. **International Journal Of Novel Research And Development**. 7(9):e258-e266. (ISSN: 2456-4184) (UGC Approved).
5. P. Sreelakshmi, Rose Mary Sunny, **M. Shanmugavadivu**. 2024. Pharmaceutical Applications of *Moringa oleifera* Lam. **International Journal of Pharmaceutical Sciences**. 2(5): 1354-1359. (ISSN: 0975-4725) (UGC Approved)
6. Rose Mary Sunny, P. Sreelakshmi, **M. Shanmugavadivu**. 2024. Industrial Applications Of Lactic Acid Bacteria – A Review. **International Journal of Pharmaceutical Sciences**. 2(5): 1104-1108. (ISSN: 0975-4725) (UGC Approved)
7. Dhanalakshmi Karuppasamy, Niveda Kannappan, **Shanmugavadivu Muthusamy**. 2024. *Leucas aspera* and its Economic Importance: A Review. **International Journal of Pharmaceutical Sciences**. 2(4): 1218-1222. (ISSN: 0975-4725) (UGC Approved)

8. Niveda Kannappan, Dhanalakshmi Karuppasamy, **Shanmugavadivu Muthusamy**. 2024. Sources and Applications of Chitin: A Review. **International Journal of Pharmaceutical Sciences**. 2(4): 1152-1161. (ISSN: 0975-4725) (UGC Approved)
9. Soundarya Dhandapani, **Shanmugavadivu Muthusamy**, Renuga Devi, Karthikeyan V and Rathika S.2019. Potential Uses of Fish: A Review. **International Journal of Innovative Research in Science, Engineering and Technology**. 8(10):10150-10153. (ISSN: 2319-8753)
10. Dharanipriya P, **Shanmugavadivu M** and Poongothai M. 2019. *Bacillus anthracis* Mediated Saccharification of Groundnut Shell for Ethanol Production. **Int J Plant Anim Environ Sci**. 9 (3): 190-199. (ISSN:2231-4490)
11. **M. Shanmugavadivu**, Bharath Kumar Velmurugan. 2018. Antibacterial activity and Antidiabetic activity of *Costus igneus*, *Gymnema sylvestre* and *Ocimum sanctum*. **International Journal of Chem Tech Research**. 11(10):126-134. (ISSN: 0974-4290)
12. Vidhya Jaganathan, **Shanmugavadivu Muthusamy**, Sandhya Ganesh. 2018. Preliminary Phytochemical Screening and Anti- bacterial Activity of Grape Seeds Methanolic Extract. **International Journal of Pharma Research and Health Sciences**. 6 (2): 2497-01. (ISSN: 2348-6465)
13. Sandhya Ganesh, **Shanmugavadivu Muthusamy** and Vidhya Jaganathan. 2018 Preliminary Phytochemical screening, Anti-bacterial and Thrombolytic activity of Cleome gynandra aqueous extract. **International Journal of Advanced Research in Biological Sciences**. 5(3): 30-36. (ISSN: 2348-8069)
14. Vidhya Jaganathan, **Shanmugavadivu M**, Sandhya Ganesh. 2018. Preliminary phytochemical screening and anti-bacterial activity of date seed methanolic extract. **International Journal of Advanced Research in Biological Sciences**. 5(2): 209-215. (ISSN: 2348-8069)
15. Ranjithkumar Rajamani, Selvam Kuppasamy, **Shanmugavadivu. M** and D. Rajmohan. 2016. Preliminary phytochemical screening of aqueous extract of Betal nut and Betal leaves. **International Journal of Biosciences and Nanoscience**. 3(1): 14-18. (ISSN 2349- 5251)
16. Ranjith Kumar Rajamani, Selvam Kuppasamy and **Shanmugavadivu.M**. 2014. Antibacterial Textile Finishing via Green Synthesized Silver Nanoparticles. **Journal of Green Science and Technology**, 1(2):1-3. (ISSN 2164-7585)

17. Harish Kumar.K, **Shanmugavadivu.M**, Ranjith Kumar Rajamani and Selvam Kuppusamy. 2014. Antibacterial Activity of Leaf Extracts of *Ageratina adenophora* L., medicinal plants of Nilgiris Hill, Tamilnadu against Human pathogens. **International Journal of Biosciences and Nanosciences**, 1(1): 1-3 (ISSN 2369-5251)
18. Harish Kumar.K, **Shanmugavadivu.M**, Ranjith Kumar Rajamani and Selvam Kuppusamy. 2014. Antibacterial Activity of Different Solvent Extracts of Medicinal Plants: *Ruta graveolens* L, **International Journal of Biosciences and Nanosciences**, 1(1): 9-11. (ISSN 2369-5251)
19. Ranjith Kumar Rajamani, Selvam Kuppusamy and **Shanmugavadivu.M**. 2014. Synthesis of Silver Nanoparticles using Areca Nut extract for enhanced Antibacterial Activity. **Journal of Green Science and Technology**, 1(2): 1-5.(ISSN 2164-7585)
20. **Shanmugavadivu.M**, Selvam Kuppusamy and Ranjith Kumar.R. 2014. *Lippia nodiflora* Linn. - Apotential Antibacterial Agent. **Int.J.Parmacol. Bio.Sci.**, 8(1):19-23. (ISSN 0975-6299)
21. **Shanmugavadivu.M**, Selvam Kuppusamy and Ranjith Kumar.R. 2014. Synthesis of Pomegranate peel Mediated synthesis of Silver Nanoparticles and its Antibacterial Activity. **American Journal of Advanced Drug Delivery**, 2(2):174-182. (ISSN 2321-547X)

#### **Papers Published in Conference Proceedings**

1. **M. Shanmugavadivu**, D. Shalini and B. Sangeetha. 2022. Antibacterial Potential of Silver Nanoparticles Coated Cotton Fabric. Conference Proceedings: International Virtual Conference on Global Restructuring; Trends and New Practices organized by Nilgiri College of Arts and Science, Thaloor, The Nilgiri's and K.G. College of Arts and Science, Saravanampatti, Coimbatore. 74-78. (ISBN:978-93-5473-511-0)
2. B. Sangeetha, D. Shalini, **M. Shanmugavadivu**. 2022. In Silico Docking Analysis of FTO Protein with Vaccenic Acid and Anti-Obesity Commercial Drugs By Patchdock Server. Conference Proceedings: International Virtual Conference on Global Restructuring; Trends and New Practices organized by Nilgiri College of Arts and

Science, Thaloor, The Nilgiri's and K.G. College of Arts and Science, Saravanampatti, Coimbatore. 145-157. (ISBN:978-93-5473-511-0)

### Book Publications

1. Cell Biology, Bioinstrumentation and Microbiology Lab Manual, **Dr. M. Shanmugavadivu**, 1<sup>st</sup> Edition, Inam Pathippagam, Coimbatore, 2021, ISBN: 978-93-92293-00-9.
2. Immunology and Plant Tissue Culture Lab Manual, **Dr. M. Shanmugavadivu**, 1<sup>st</sup> Edition, Inam Pathippagam, Coimbatore, 2021, ISBN: 978-93-92293-23-8.
3. Microbial Biotechnology and rDNA Technology Lab Manual, **Dr. M. Shanmugavadivu** and Dr. B. Sangeetha, 1<sup>st</sup> Edition, Inam Pathippagam, Coimbatore, 2021, ISBN: 978-93-92293-28-3
4. **Dr.M.Shanmugavadivu** and Dr.R.Suganthi.(2022). Molecular Biology, Genetics and Biochemistry Lab Manual. Dr. N.G.P. Arts and Science College, Coimbatore. ISBN: 978-81-960021-8-3
5. Dr.R.E. Ugandar, Mr.Imran Khan, Dr.M.N. Kathiravan and **Dr.M.Shanmugavadivu**. (2023). A Text Book of Fundamentals of Research Methodology and Statistics. RK Publications, Vellore. ISBN: 978-81-19140-06-0.
6. **Dr.M.Shanmugavadivu** and Dr.R.Suganthi.(2023). Genetics and Microbiology Lab Manual. Dr. N.G.P. Arts and Science College, Coimbatore. ISBN: 978-81-963790-8-7
7. Dr. M.N. Kathiravan, Dr.K. Arungandhi, Dr.P.Arun, **Dr.M. Shanmugavadivu** and Ms. K. Thilagavathi. (2023). Green Engineering and Environmental Sustainability. Cosmas Scientific Publications, Chennai. ISBN: 978-81-19359-15-8
8. Dr. M.N. Kathiravan, **Dr. M. Shanmugavadivu**, Dr.P. Chidambara Rajan, Dr. P. Arun and Ms. K. Thilagavathi. (2024). Medicinal Phytochemicals: Exploring Nature's Pharmacy. Inam Publications, Coimbatore. ISBN:978-93-95137-80-5



9. Dr. M.N. Kathiravan, **Dr. M. Shanmugavadivu**, Dr. K. Kalimuthu, Dr.P. Chidambara Rajan and Dr.M. A. Shibu. (2024). AI, ML and IoT for Sustainable Smart Agriculture Practices. Cosmas Scientific Publications, Chennai. ISBN: 978-93-6096-503-7.

## Book Chapters

1. Chapter Eight: The Role of Microorganisms in the Green Synthesis of Nanoparticles. **Microbial Diversity**, **M. Shanmugavadivu**, K.Selvam, J. Senthil Kumar and R. Ranjith Kumar, Edited by P. Ponmurugan and J. Senthil Kumar. Cambridge Scholars Publishing. 2020, 102-112. ISBN (13): 978-1-5275-4818-3.
2. Somatic Embryogenesis and Artificial Seed germination, **Recent Research in Biosciences and Biotechnology**, D.Shalini, **M. Shanmugavadivu** and B.Sangeetha. Thanuj International Publishers. 2022, 26-40. ISBN: 978-81-952529-3-0.
3. Extraction, Identification, Evaluation of Antioxidant and Antimicrobial Activity of Pomegranate Peel Pigments, The Research of Young Minds (Biotechnological Effective Approach in Science and Technology- BEAST-II), Thilagavathi Kumaran, Aarthi Chinnaswamy Ravi, **Shanmugavadivu Muthusamy**, Mathur Nadarajan Kathiravan. I I P Iterative International Publishers. 2023,103-111. ISBN: 978-93-5747-793-2.
4. Extraction of Natural Dye from *Terminalia catappa* Fruits and Evaluating the Antibacterial Activity of Natural DyeCoated Textile Against Skin Pathogen, The Research of Young Minds (Biotechnological Effective Approach in Science and Technology- BEAST-II), **Shanmugavadivu Muthusamy**, Dharaneesh K. I I P Iterative International Publishers. 2023,160-165. ISBN: 978-93-5747-793-2.
5. Formulation and Evaluation of Herbal Toothpaste from *Mimosa pudica* for Gingivitis, Medicinal Phytochemicals: Exploring Nature's Pharmacy, Keerthiga S and **Shanmugavadivu M**, INAM Pathipagam, Coimbatore. 2024, 224-240. ISBN: 978-93-95137-80-5.
6. Food and Nutrition, Current Research on Bioprospecting and its Applications (Vol II), Divya Dharshini. J, Jyothi Krishna. V, **Shanmugavadivu Muthusamy** and Arungandhi

### Patents

1. Granted Design patent for **AI Based Chlorophyll Determination** on **02.07. 2024** (Design No: 421987-001)

### Consultancy

Nature of Consultancy	Client	Amount	Completion Status
Project in Biology for IB diploma program	The Indian Public School	31,950.00	Completed
Project in Biology for IB diploma program	The Indian Public School	37,050.00	Completed
Project in Biology for IB diploma program	The Indian Public School	43,250.00	Completed

### Presentations in Conference

1. **Phyto-chemical components of *Lippia nodiflora* Linn.**, National Symposium on “Scientists Oration for Researches and Techniques in Biotechnology” organized by Department of Biotechnology and Bioinformatics, Vivekanandha College of Arts and Sciences for Women, Tiruchengode on 11<sup>th</sup> & 12<sup>th</sup> February 2006 sponsored by Angammal Educational Trust and Vivekanandha Educational Institutions.
2. **Efficiency of Marine Actinobacterial isolates in the Biosorption of Heavy metals from the electroplating industrial effluents**, National conference on “Green Technologies for Conservation of Biodiversity (GTCB 2013)” held at Sri Ranganathar Institute of Engineering and Technology, Coimbatore on 16<sup>th</sup> February 2013.
3. **Biodiversity in Western Ghats**, National Level Seminar on “Current Trends in Biodiversity Conservation and Forest Management [CTBCFM-2014]” held at Center for Biodiversity and Forest studies, Periyar University, Salem, 6<sup>th</sup> & 7<sup>th</sup> –Jan - 2014.

4. ***Lippia nodiflora* Linn – A potent antibacterial agent**, DBT sponsored National Seminar on “Recent Advances in Biotechnology and Applied Microbiology” organized by Department of Microbiology, Kanchi Shri Krishna College of Arts and Science, Kanchipuram 3<sup>rd</sup> & 4<sup>th</sup> –Mar- 2014.
5. **Synthesis of Silver nanoparticles using lemon peel extract**, National Conference on “Bioscience, Bioengineering & Environment (NCBBE-2014)” organized by Department of Biotechnology & Industrial Biotechnology, Karpagam university, 9<sup>th</sup> & 10<sup>th</sup> –Oct- 2014.
6. **Biomimetic etiquette for room temperature synthesis of silver nanoparticles via orange peel aqueous extract in minutes: An antibacterial material**, National Conference on “Medicinal Plants and Health Care” organized by PG & Research Department of Biotechnology, Kongunadu Arts and Science College, 17-Mar- 2015.
7. **Biomimetic etiquette for room temperature synthesis of silver nanoparticles via the extract of *Allium cepa*: An antibacterial material**, National Level Seminar on “Biodiversity Products and Industrial Applications (BPIA-2015)” held at Center for Biodiversity and Forest studies, Periyar University, Salem, 28<sup>th</sup> & 29<sup>th</sup> –Sep- 2015.
8. ***Ocimum sanctum* – a potent Antibacterial agent**, one day national seminar on “Recent Innovations in Biosciences” organized by Dr. R. V. College of Arts and Science, Karamadai, Coimbatore, 26- Aug- 2016.
9. ***Gymnema sylevestre* – A potent Anti-diabetic Agent**, one day international conference on “Frontiers in Biotechnology” organized by Department of Biotechnology, Nandha Arts and science College, Erode. 3-Feb-2017.
10. **Phytochemical analysis & Antibacterial activity of *Costus igneus***, two days international symposium on “Bioscience research for present and future” (Biomillennium’17) organized by Department of Biotechnology, Vivekanandha College of Arts and Science for Women, Tiruchengode, 7<sup>th</sup> & 8<sup>th</sup> –Mar-2017.
11. **Comparative Study of phytochemicals in Date seeds and grape seeds**, two days National Seminar on “Challenges and Advances in Microbiology (CAM-2018)” organized by Department of Microbiology, Annamalai University on 1<sup>st</sup> & 2<sup>nd</sup> February 2018.

12. ***Invitro* antiplatelet, thrombolytic and antiproliferative activity of Cleome gynandra leaf extract against Human HepG2 cell line**, NABARD sponsored National seminar cum workshop on “ Innovations and Implementation of modern technologies in agriculture organized by PG and Research Department of Biotechnology, Selvamm Arts and Science College, Namakkal, 22<sup>nd</sup> -24<sup>th</sup> – Nov-2018.
13. **Date seed oil - A potential therapeutic Agent**, International Conference on “ Recent Advances in Bioscience”organized by PG Department of Biotechnology, KSG College of Arts and Science, Coimbatore, 28<sup>th</sup> October 2022.
14. **Innovative solutions for safe and effective nanoparticle based approaches**, National Conference on “ Bioengineering and Nanotechnology in Medicine and Biology”organized by Department of Biotechnology, Sri Ramakrishna College of Arts and Science, Coimbatore on 23<sup>rd</sup> and 24<sup>th</sup> Mar 2023
15. **A study on growth regulators on *Bacopa monnira* callus induction, auxillary budding & shoot proliferation**, International Conference on “Recent Innovations in Health & Biological Sciences (ICRIHBS 2023)” organized by PSG College of Arts and Science, Coimbatore in association with Indian Immunologicals Limited, Hyderabad on 14<sup>th</sup> & 15<sup>th</sup> July 2023.
16. **Implementation Strategies, Roadmap and Key Challenges of Multidisciplinary Education and Flexibility in Curriculum Design as per NEP 2020**, ICSSR, New Delhi sponsored One day National seminar on “Impact of New Education Policy among future Generation” organized by Post Graduate Department of Commerce with Computer Applications, NGM College, Pollachi on 10<sup>th</sup> August 2023.
17. **The Impact of Traditional Knowledge Systems in Modern Education**, National Seminar on “Integration of Traditional Indian Knowledge System into Modern Higher Education: NEP Perspective (ICSSRIKS2024)”, sponsored by ICSSR, New Delhi organized by IQAC, Dr. N.G.P. Arts and Science College, on July 4<sup>th</sup> and 5<sup>th</sup>, 2024.
18. **Traditional Knowledge of Ayurveda and Yoga in Health Care**, National Seminar on “Integration of Traditional Indian Knowledge System into Modern Higher Education: NEP Perspective (ICSSRIKS2024)”, sponsored by ICSSR, New Delhi organized by IQAC, Dr. N.G.P. Arts and Science College, on July 4<sup>th</sup> and 5<sup>th</sup>, 2024.

19. **Vedic Science and Their Modern Interpretations**, National Seminar on “Integration of Traditional Indian Knowledge System into Modern Higher Education: NEP Perspective (ICSSRIKS2024)”, sponsored by ICSSR, New Delhi organized by IQAC, Dr. N.G.P. Arts and Science College, on July 4<sup>th</sup> and 5<sup>th</sup>, 2024.

20. **Chemistry of Indian Spices and Their Health Benefits**, National Seminar on “Integration of Traditional Indian Knowledge System into Modern Higher Education: NEP Perspective (ICSSRIKS2024)”, sponsored by ICSSR, New Delhi organized by IQAC, Dr. N.G.P. Arts and Science College, on July 4<sup>th</sup> and 5<sup>th</sup>, 2024.

21. **Fermentation Technology and Food Innovation**, National Level Conference on “Probiotics, Prebiotics, Postbiotics and Biofortification: The Future of Human Health and Nutrition”, sponsored by TNSCST, Govt. of Tamil Nadu organized by PSGR Krishnammal College for Women, Coimbatore on December 12<sup>th</sup> & 13<sup>th</sup>, 2024.

## Participation in Conference

### International

1. **Harnessing Microbes for Human Health and Resource Recuperation** organized by Department of Microbiology, Dr.N.G.P. Arts and Science College, Coimbatore on 7<sup>th</sup> and 8<sup>th</sup> 2012 sponsored by ICMR, DBT, New Delhi and KMCH Coimbatore.
2. **Infection and Immunity** organized by Department of Biotechnology, S.N.R Sons College, Coimbatore, 18- Feb- 2015.
3. **Public Health Emergency and Disaster Management** organized by PG and Research Department of Biotechnology and Microbiology, Hidusthan College of Arts and Science, 3-Nov- 2015.
4. **Indian Rural Public Health and Non Communicable Disease** organized by Kovai Medical Center and Hospital, Coimbatore, 6-Apr-2019.
5. **Role of Multidisciplinary Research in Microbiology for Sustainable Development ( RMSD 2023)** organized by Department of Microbiology, Dr.N.G.P Arts and Science College, Dr. N.G.P Arts and Science College, Coimbatore, 9<sup>th</sup> & 10<sup>th</sup> - Mar- 2023.

## National

1. **Anvance Trends in Biotechnology : “Biotechnology – A Conservationist of Biosciences”** organized by Department of Biotechnology, Dr.N.G.P. Arts and Science College, Coimbatore, 2<sup>nd</sup> & 3<sup>rd</sup> – Feb-2007.
2. **Anvance Trends in Biotechnology : “Biotechnology – A Conservationist of Biosciences”** organized by Department of Biotechnology, Dr.N.G.P. Arts and Science College, Coimbatore, 19<sup>th</sup> & 20<sup>th</sup> – Dec-2008
3. **Biopharmaceuticals – Their Application in Disease prevention and Health Promotion – NSBP 2011** organized by Department of Microbiology, Dr.N.G.P. Arts and Science College, Coimbatore sponsored by ICMR, New Delhi and KMCH, Coimbatore, 4<sup>th</sup> & 5<sup>th</sup> - Aug- 2011.
4. **Achieving Academic Excellence through Internal Quality Assurance Cell (IQAC)** held at Dr.N.G.P. Arts and Science College, Coimbatore sponsored by NAAC, 9<sup>th</sup> & 10<sup>th</sup>- Dec - 2011
5. **Perception of Microbes in Human Health and Environment PSPM-2013** organized by Department of Microbiology, Dr.N.G.P. Arts and Science College, Coimbatore 22 – Aug - 2013.
6. **Recent Trends in Medicinal Plants and Their Products** organized by Department of Biochemitry and Clinical Laboratory Technology, Dr.N.G.P. Arts and Science College, Coimbatore 18–Sep- 2013.
7. Exhibition on **“Medicinal values of Plants and Plant Products”** organized by PG and Research Department of Biotechnology, Kongunadu Arts and Science College, Coimbatore 23–Jan- 2014.
8. **Momentous Microbes From Menace to Marvel – PSMM 2014** organized by Department of Microbiology, Dr.N.G.P. Arts and Science College, Coimbatore 20 – Aug- 2014.
9. **Technical Advances in Textile, Physical & Biological Sciences** organized by Department of Costume Design & Fashion, Physics and Biotechnology, Nandha Arts and Science College, Erode 5<sup>th</sup> & 6<sup>th</sup> - Feb- 2015.

10. **Emerging Education Models for 21<sup>st</sup> Century Learner (NCEEM-2015)** organized by Association of Principals of Colleges of Bharathiar University jointly with UCG Human Resource Development Centre, Bharathiar University 1 – Aug- 2015.
11. **Biodiversity Conservation** organized by PG and Research Department of Biotechnology, Sree Narayana Guru College, Coimbatore 30 –Sep- 2015.
12. **Traditional and Translational Scenarios in Biological Sciences (3 I's- *In vitro* to *In vivo* to *In Silico*)**, organized by Department of Microbiology sponsored by DBT and ICMR, Dr.N.G.P. Arts and Science College, Coimbatore, 9<sup>th</sup> -10<sup>th</sup> September 2016.
13. **Changing Disease Profile: Challenges Facing Basic and Translational Research in India**, organized by Department of Biochemistry and sponsored by DBT, Dr.N.G.P. Arts and Science College, Coimbatore 5<sup>th</sup> & 6<sup>th</sup> – Oct- 2016.
14. **Innovative Approaches & Modern Techniques in Biological Sciences 2019 (IAMTBS-19)** organized by Department of Botany, Periyar University, Salem 22 –Jan- 2019.

#### Participation in Seminars

1. State Level seminar on “**Broad Spectrum of Enzymes – The Emerging Technology**” organized by Department of Biochemistry, Karpagam Arts and Science College, Coimbatore, 6– Mar - 2002.
2. State Level seminar on “**Recent Developments in Applied Microbiology**” organized by Department of Microbiology and Biotechnology, PSG College of Arts and Science, Coimbatore, Sponsored by University Grants Commission, New Delhi, 17<sup>th</sup> & 18<sup>th</sup> – Feb - 2003
3. National Level Seminar on “**Current Technology Developments in Biosciences**” organized by the Departments of Biosciences, Vivekanandha College of Arts and Sciences for Women, Tiruchengode, 12<sup>th</sup> – 14<sup>th</sup> –Sep- 2007.
4. Popular Lectures on “**Current trends in Biotechnology and Bioinformatics**” organized by Research Department of Botany, Nimala College for Women Coimbatore, sponsored by Department of Biotechnology, New Delhi, 2- March- 2012.

5. National Seminar on **“Emerging Trends in Microbial Biotechnology”** organized by Department of Microbiology, Kanchi Shri Krishna College of Arts and Science, Kanchipuram, sponsored by DBT, New Delhi, 20<sup>th</sup> & 21<sup>st</sup> –Feb- 2013.
6. National Level Seminar on **“Frontier Research in Applied Biology & Environmental Sciences”** organized by King Nandhivarman College of Arts & Sciences, Thiruvannamalai, 30<sup>th</sup> - Jan- 2016.
7. State level seminar on **“Current Strategies in Forest Resources Management”** organized by Department of Zoology, Virudhunagar Hindu Nadars’ Senthikumara Nadar College, Virudhunagar, 16-Feb-2018
8. National Seminar & Medicinal plant exhibition on **“Complementary and alternative Indian system of Medicine”** organized by Department of Botany, Nirmala College for Women, Coimbatore, 1<sup>st</sup> & 2<sup>nd</sup> –Feb- 2019
9. National Seminar on **“Mushrooms- Rise of research and retreats for humanity”** organized by Department of Plant Pathology, TNAU, Coimbatore, 30-Sep-2019.
10. One day Programme on **“Promoting Innovation & Entrepreneurship in HEIs”** organized by Association of Self - Financing Arts, Science & Management Colleges of Tamilnadu, at PSGR Krishnammal College for Women, Coimbatore, 30<sup>th</sup> November 2023.
11. 6 days live webinar on **“Nurturing Future Biotech Industry Professionals”** organized by Division of Biotechnology, Karunya Institute of Technology and Sciences, Coimbatore from 3<sup>rd</sup> to 8<sup>th</sup> June 2024.

#### **Participation in Workshop**

1. DBT sponsored one day Workshop on **“Recent Trends in Biophysics and Nanotechnology”** organized by the Department of Physics, PSG College of Arts and Science, 26- Jul- 2013.
2. One day workshop on **“Analysis of spectral data”** organized by Center for Research, Dr. N.G.P. Arts and Science College, Coimbatore, 30 -Jan-2017.
3. Science Academies’ sponsored three days Lecture workshop on **“Biodiversity and Bioresources: Conservation and Utilization”** organized by Government Arts College, Karur, 8<sup>th</sup> – 10<sup>th</sup> – Feb- 2017.



4. Science Academies' Lecture workshop on “ **DNA Technologies in Revisiting Biology**” organized by Department of Biochemistry, Dr. N.G.P. Arts and Science College, Coimbatore, 27<sup>th</sup> – 29<sup>th</sup> –Jul-2017.
5. Science Academies' Lecture workshop on “ **Recent Advances in Biochemistry**” organized by Department of Biochemistry, Dr. N.G.P. Arts and Science College, Coimbatore, 10<sup>th</sup> – 11<sup>th</sup> –Aug-2018.
6. DST-DADD-Project based Personal Exchange Programme(PPP) sponsored International workshop on “**Health Risk Assessment of Nanoparticles**” organized by Faculty of Basic and Applied Science and Bioscience, Dr. N.G.P. Arts and Science College, Coimbatore, 5<sup>th</sup> -7<sup>th</sup> – Dec-2018.
7. One day workshop on “ **Outcome Based Education (OBE)**” organized by Dr.N.G.P Arts and Science College, Coimbatore in association with ipsr solutions limited on 4<sup>th</sup> March 2023.
8. Professional Development Workshop on “**Digital Creative Skills as a part of Adobe Academic Essentials Program**” conducted by Adobe Express in 2023.
9. One week national e-workshop on “**Innovation & Intellectual Property Rights**” organized by Innovative Technology Enabling Centre (InTEC), CSIR-IMMT, Bhubaneswar during June 12-17, 2023.
10. Two days State Level Technical workshop on “**Intellectual Property Rights**” organized by G.Venkataswamy Naidu College(Autonomous), Kovilpatti in Association with TNSCST and Technology Information, Forecasting and Assessment Council during July 21 - 22, 2023.
11. Two day CIPAM's Workshop on “**Intellectual Property Rights (IPR)-2023**” organized by IPR cell and IQAC, RVS College of Arts and Science, Sulur, Coimbatore during 4<sup>th</sup> & 5<sup>th</sup> September 2023.
12. 6 Days workshop on “**Entrepreneurship Essentials Indian Patent drafting, Filing Procedures & Copyright filing for IP Management**” organized by the Centre for Innovation Incubation & Entrepreneurship (CII &E) & Intellectual Property Rights Cell of PSG College of Arts & Science, Coimbatore on 7th-9th - 15th -16th December 2023 and 22nd January 2024.

13. Hands on Workshop on **“Animal Tissue Culture Techniques in studying Cellular Senescence”** in the sideline of two day Internatinal Conference on Aging and Age related Disorders organized by the Department of Biotechnology, Bharathiar University, Coimbatore on 4<sup>th</sup> February 2025.

#### Participation in Orientation Programme / Short Term Courses

1. **Training in Bio-Chemical tests** in Lotus Apollo Hospital, Erode on 23<sup>rd</sup> November – 2<sup>nd</sup> December 2001.
2. Science Academies’ Refresher Course on **“Biotechnology Techniques in Biodiversity Conservation”** during 10<sup>th</sup>-24<sup>th</sup> September 2018 (Two week) at Bharathiar University, Coimbatore.
3. International short term training Programme -4 on **“ Methods, Modeling, Data and Tools of Environmental Conversion”** organized by Raj Rishi Govt. Autonomous College from 1<sup>st</sup> - 7<sup>th</sup> November 2022.
4. International short term training Programme -5 on **“Production and Regulation of chemicals and Toxins for Environmental conservation”** organized by Raj Rishi Govt. Autonomous College from 7<sup>th</sup> - 13<sup>th</sup> December 2022.
5. Online Training on **“ Development of eContent: Audio Resources”** organized by Central Institute of Educational Technology, NCERT from 26<sup>th</sup> - 30<sup>th</sup> June 2023.
6. International short term training Programme -10 on **“Environment Pollution: A threat to life in the Air”** organized by Raj Rishi Govt. Autonomous College from 15<sup>th</sup> – 21<sup>st</sup> August 2023.
7. Four weeks International online Certificate Course on **“Microbiology Laboratory Techniques (Phase I)”** organized by the Department of Microbiology, Sacred Heart College (Autonomous), Tirupattur from 04<sup>th</sup> September 2023 - 03<sup>rd</sup> October 2023.
8. Undergone 30 hours (16 sessions) “Innovation Ambassador (IA) training ‘Foundation Level’ conducted online by MoE’s Innovation Cell & AICTE during the calendar year 2024.

9. Undergone 30 hours (16 sessions) “Innovation Ambassador (IA) training ‘Advanced Level’ conducted online by MoE’s Innovation Cell & AICTE during the calendar year 2024.
10. 10 days “**NEP Orientation & Sensitization Programme -02**” organized by Inter University Centre for Teacher Education, BHU, Varanasi in online mode from 22<sup>nd</sup> July to 31<sup>st</sup> July 2024.

#### **Participation in Faculty Development Programme**

1. Seven days Faculty development Programme on “**Quality Measures in Higher Education**” during 3<sup>rd</sup>-9<sup>th</sup> December 2018 at Dr.N.G.P. Arts and Science College, Coimbatore.
2. Seven days Faculty development Programme on “**NAAC Resived framework and OBE Assessment Methodologies**” during 27<sup>th</sup> May -2<sup>nd</sup> June 2019 at Dr.N.G.P. Arts and Science College, Coimbatore.
3. One week online Professional development Program on “**Avenues of Biotechnology**” organized by Department of Biotechnology during 20<sup>th</sup> June – 26<sup>th</sup> June 2022 at SRM Institute of Science and Technology, Chennai.
4. One week online FDP on “**Research Prospects and Progress in Biological Science**” (RPPB-2022) organized by Department of Biotechnology during 4<sup>th</sup> July – 10<sup>th</sup> July 2022 at SRM Institute of Science and Technology, Chennai.
5. Nine days UGC - Approved Short term Professional Development Programme on “**Implementation of NEP - 2020 for university and College Teachers**” organized by Indira Gandhi National Open University during 18<sup>th</sup> - 26<sup>th</sup> November 2022.
6. 5 days faculty development programme on “**Outcome Based Education**” organized by Center for Professional Development, Dr. N.G.P. Arts and Science College, Coimbatore from 17th June to 21st June 2023.
7. 5 days faculty development programme on “**Empowering Education for innovation - A NEP Perspective**” organized by Center for Professional Development, Dr. N.G.P. Arts and Science College, Coimbatore from 30th June to 4th July 2023.

8. One week Faculty Development Program on “ **Avenues of Biotechnology - 2023**” organized by the Department of Biotechnology, College of Science and Humanities, SRM Institute of Science and Technology, Ramapuram Campus, Chennai from 3<sup>rd</sup> - 9<sup>th</sup> July 2023.
9. 5 days virtual Faculty Development Program on “**Advancements and Innovations in Cellular Communication and Signal Transduction**” held from 17<sup>th</sup> to 21<sup>st</sup> July 2023, organized by Department of Biotechnology, Jaypee Institute of Information Technology, Noida.
10. 5 days Faculty Development Programme on “**Intellectual Property Rights for Sustainable and Technology Development**” organized by Galgotias University, Greater Noida, UP from 6<sup>th</sup> February to 10<sup>th</sup> February 2024.
11. 7 days Faculty Development Programme on “**Indian Knowledge System**” organized by the IQAC, Nandha Arts and Science College (Autonomous), Erode from 30<sup>th</sup> September to 6<sup>th</sup> October 2024.
12. 5 days Virtual FDP on “**Embracing local Ecological Management and Environmental norms through the teachings of Sustainability via Pancha Bhoota and Indian Knowledge systems (ELEMENTS-2024)**” organized by the Department of Microbiology, Rathinam College of Arts and Science, Coimbatore from 17.10.2024 - 23.10.2024.

#### **Conference / Seminar / Workshop Organized**

##### **Conference/ Seminar**

1. Committee Member in National Conference on “Perspectives of Biotechnology for Health Development” on 29<sup>th</sup> & 30<sup>th</sup> December 2011 in Dr. N.G.P Arts and Science College, Coimbatore.
2. Committee Member in two day National Conference on “Biotechnology – Present and Future” on 26<sup>th</sup> & 27<sup>th</sup> September 2013 in Dr. N.G.P Arts and Science College, Coimbatore.
3. Committee Member in one day Dr. Nalla G Palaniswami Endowment Seminar on “Innovations in Biotechnology” on 28.02.2014

4. Committee Member in two day National Conference on “Biotechnology – Present and Future for sustainable Healthcare Development” on 29<sup>th</sup> & 30<sup>th</sup> December 2014 in Dr. N.G.P Arts and Science College, Coimbatore.
5. Committee Member in two day National Conference on “Bioprospecting – Initiatives and Challenges” on 28<sup>th</sup> -29<sup>th</sup> December 2015 in Dr. N.G.P Arts and Science College, Coimbatore.
6. Joint Organizing Secretary in one day National Conference sponsored by Indian Council of Medical Research, New Delhi, Department of Biotechnology, New Delhi and Kovai Medical Centre and Hospitals Coimbatore on “Genomics and Proteomics in Bioprospecting- Role in Healthcare Development” on 21<sup>st</sup> December 2016 in Dr. N.G.P Arts and Science College, Coimbatore.
7. Committee Member in one day National Conference on “Bioprospecting- Indian Perspectives, Challenges & Opportunities” on 28<sup>th</sup> December 2017 in Dr. N.G.P Arts and Science College, Coimbatore.
8. Committee member in National Seminar on “Biodiversity and its Prospecting (NSBP-19)” on 28<sup>th</sup> February 2019 in Dr. N.G.P Arts and Science College, Coimbatore.
9. Committee member in National Conference on “Recent trends in Bio-prospecting and its Challenges” on 16<sup>th</sup> October 2019 in Dr. N.G.P Arts and Science College, Coimbatore.
10. Committee member in National Symposium on “Graduate Research-20” on 21<sup>st</sup> & 22<sup>nd</sup> February 2020 in Dr. N.G.P Arts and Science College, Coimbatore.
11. Co-ordinated in conducting the “Intellectual Property Awareness Program under NIPAM” jointly organized by IP office and MoE’s Innovation Cell, India on February 10, 2023

### **Workshops**

1. Committee Member in Workshop on “Down Stream Processing and its applications” on 15<sup>th</sup> & 16<sup>th</sup> February 2013 in Dr. N.G.P Arts and Science College, Coimbatore.
2. Organizing Committee member, DBT-STAR scheme sponsored Workshop on Nanophotomertic Techniques, organized by Department of Biotechnology at Dr. N.G.P Arts and Science College, Coimbatore, 10-Jan-19.

3. Organizing Committee member, DBT-STAR scheme sponsored Workshop on Microtome, organized by Department of Biotechnology at Dr. N.G.P Arts and Science College, Coimbatore, 07-Feb-19.
4. Organizing Committee member, DBT-STAR scheme sponsored Workshop on PCR and Nanophotometer, organized by Department of Biotechnology at Dr. N.G.P Arts and Science College, Coimbatore, 13-Feb-19.
5. Organizing Committee member, National Workshop on Data Analytics and its applications in Biotechnology (sponsored by DBT. New Delhi), Department of Computer Technology and Department of Biotechnology at Dr. N.G.P. Arts and Science College, Coimbatore, 14 to 15-Feb-19.
6. Organizing Committee member, DBT-STAR scheme sponsored Workshop on Protein & Nucleic Acid Quantification with Nanophotometer, organized by Department of Biotechnology at Dr. N.G.P Arts and Science College, Coimbatore, 19-Feb-19.
7. Organizing Committee member, DBT-STAR scheme sponsored Workshop on Operations and Applications of UV-Visible Spectrophotometer, organized by Department of Biotechnology at Dr. N.G.P Arts and Science College, Coimbatore, 21-Feb-19.
8. Organizing Committee member, DBT-STAR scheme sponsored Workshop on Animal Cell Culture Technique, organized by Department of Biotechnology at Dr. N.G.P Arts and Science College, Coimbatore, 30-Mar-19.

#### **Faculty Development Programme**

1. Organizing Secretary in seven days Faculty development programme on “Quality Measures in Higher Education” during 3<sup>rd</sup>-9<sup>th</sup> December 2018 at Dr.N.G.P. Arts and Science College, Coimbatore.
2. Committee Member in one day National Conference on “Recent Trends in Bioprospecting and its Challenges” on 16<sup>th</sup> October 2019 in Dr. N.G.P Arts and Science College, Coimbatore.

#### **Invited Speaker / Session Chair- Conference / Seminar / Workshop**

1. Resource person in DBT STAR College Sponsored Webinar Series on “**Cancer and Thearapeutics**”, organized by Department of Biotechnology, Hindusthan College of Arts and Science, Coimbatore, 15- Dec-2021.

2. Resource Person in Seminar on “**Ethics, Intellectual Property Rights & Good Clinical Practice**” organized by IQAC cell, KMCH College of Nursing, Coimbatore, 01-Mar-2024.

3. Resource Person in International Conference on “ **Artificial Intelligence is the New Frontier of Digital Technology and Patent**” organized by IQAC Cell and Department of Computer Science, Theivanai Ammal College for Women, Vilupuram, 16-Mar-2024.

4. Resource Person in Hands-on Training on “Patent Filing” on World Intellectual Property Day-2024 at KMCH College of Nursing, Coimbatore, 26.04.2024.

5. Resource person in Orientation Session on “Innovation, Intellectual Property Rights (IPR), prototype development, process design, and entrepreneurship” at Shree Vidyalaya Matriculation Higher Secondary School, Gobichettipalayam on 18.06.2024

6. Resource person in Training and Boot Camp Session on “Technological Innovations” at Shree Vidyalaya Matriculation Higher Secondary School, Gobichettipalayam on 01.08.2024.

7. Recognized for the mentorship to the participants of ATL Tinkepreneur 2024 by ATAL Innovation Mission on 07.10.2024.

#### **Member in BoS**

Board of Biotechnology, Dr. N.G.P. Arts and Science College, Coimbatore, 2015-2020.

#### **Editorial / Review Board Member**

NIL

#### **Membership in Professional Bodies**

<b>Name of the Professional Body</b>	<b>Nature of membership</b>	<b>Duration</b>
Academic and Research Conclave	-	Life Member
-	-	-

**Awards / Honors**

<b>Awards / Honors</b>	<b>Agency / Institute</b>	<b>Year of Award</b>
Design Patent	The Patent Office, India	2024

**Recognition National / International**

<b>Nature of Recognition</b>	<b>Organization / Institution</b>	<b>Year</b>
Valuable mentorship for the participants of ATL Tinkepreneur 2024	Atal Innovation Mission & NITI Aayog	2024