

Name : Dr. K. ARUNGANDHI

Department : BIOTECHNOLOGY

Designation : PROFESSOR

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

Experience : Teaching: 21.0 Years Research: 15 Years

Area of Specialization(s) : Microbial Biotechnology & Genetic Engineering

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Academic Qualifications

Degree	Branch	Institution/ University Name	Year of Graduation
Ph.D.	Biotechnology	Dr. N.G.P. Arts and Science College, Bharathiar University-Coimbatore	May, 2015.
M.Phil.	Biotechnology	Manonmanium Sundaranar University Tirunelveli, Taminadu India	November, 2006
PG	Biotechnology	Srimad Andavan Arts and Science- Bharathidasan University- Tiruchirappalli, Tamilnadu, India.	May, 2003
UG	Biotechnology	Kongunadu Arts and Science College- Bharathiar University Coimbatore, Tamilnadu, India.	April, 2000

Research Guidance

Programme	No. of Scholars	
	Completed	Pursuing
Ph. D.	01	02
M. Phil.	05	-

Research Publications (Indexed)

1. K. Selvam, M. Shanmuga Priya and K. Arungandhi **Pretreatment of Wood Chips and Pulps with Thelephora Sp. to reduce Chemical Consumption in Paper Industries**. International Journal of ChemTech Research Vol. 3, No.1, pp 471-476 ISSN : 0974-4290
2. K. Selvam, M. Shanmuga Priya, C. Sivaraj and K. Arungandhi **Identification and Screening of wood rot fungi from Western Ghats area of South India**. International Journal of ChemTech Research Vol.4, No.1, pp 379-388, ISSN : 0974-4290
3. Selvam K, Arungandhi K, Rajenderan G and Yamuna M **Bio-Degradation of Azo Dyes and Textile Industry Effluent by Newly Isolated White Rot Fungi** Open Access Scientific Reports 1:564 doi:10.4172/scientificreports.564

4. K Selvam, K Arungandhi, B Vishnupriya, T Shanmuga priya and M Yamuna Biosorption Of Chromium (Vi) from industrial effluent by wild and mutant type strain of *Saccharomyces cerevisiae* and its immobilized form. Bioscience discovery, 4(1): 72-77, Jan. 2013 ISSN: 2229-3469
5. K. Selvam and K. Arungandhi, **Biobleaching and delignification of hard wood kraft pulp (hwkp) by Trametes sp., Ganoderma sp. and Poria sp.** IJPAES 3(3):96-100 ISSN 2231-4490
6. K.Arungandhi, S. Janani and K. Selvam **Biosorption of chromium from aqueous solution using Eichhornia crassipes.** International Journal of Biosciences and Nanosciences. Volume 2 (1), 2015, pp. 9-14 ISSN-2349-5251
7. S. Monisha, Kandasamy Arungandhi, D. Sunmathi, S. Ranjith and S. Priyanga (2018). **Antiinflammatory activity and antidiabetic activity of flower extract of Senna auriculata (L). Roxb. An in vitro study.** International Journal of Plant, Animal and Environmental Sciences, 8(3):1-7 ISSN – 2231-4490
8. S.Ranjith, Kandasamy Arungandhi, D.Sunmathi, S.Priyanga and S.Monisha, (2018). **Green synthesis of iron nanoparticles from Cassia auriculata Linn leaf extract.** European Journal of Biomedical and Pharmaceutical sciences, 5(6):490–495 ISSN – 2349-8870
9. P. Nanthavanan, Kandasmy Arungandhi, D. Sunmathi and J.Niranjana (2019). **Biological synthesis of keratin nanoparticles from dove feather (Columba livia) and its applications,** Asian Journal of Pharmaceutical and Clinical Research, 12(10):142-146 ISSN – 0974-2441
10. J.Niranjana, Kandasmy Arungandhi, D. Sunmathi and P. Nanthavanan (2019). **Extraction, Characterization and Partial purification of L-Asparaginase from the leaves of Arachis hypogaea L.** Biosciences Biotechnology Research Asia. 16(3):681-691 ISSN -0973-1245
11. S. Alice Keerthana, S. Kiruthika, N.R. Aparna, M. Sundar, Kandasmy Arungandhi. (2020). **Heavy metal polluted soil: A review on heavy metal contaminations and their toxic effects,** Journal of Emerging Technologies and innovative research, 6(6):25-34 ISSN – 2349- 5162
12. D. Sunmathi and Kandasmy Arungandhi. (2019). **Isolation and Characterization of biofilm bacteria,** Journal of Emerging Technologies and innovative research, 6(6):99-107 ISSN – 2349-5162
13. K. Nivetha, D. Sunmathi, Madubharathi C, Karthika R and Kandasmy Arungandhi. (2019). **Pharmacological properties of Murayya Koengii- A review,** Journal of Emerging Technologies and innovative research, 6(6):346-349 ISSN – 2349-5162

14. S. Kiruthika, S. Alice Keerthana, N.R. Aparna, M. Sundar, A. Lingeshwar, Kandasmy Arungandhi. (2020). **A review on herbal toothpaste for plaque and Gingivitis**, International Journal of Research in Engineering, Science and Management, 3(2):72-74 ISSN – 2581-5792
15. Aparna, N.R, Kandasmy Arungandhi. (2020). **Herbal drinking water and its uses**. International journal for research in applied science and engineering Technology 8(3):1118-1122 ISSN – 2321-9653
16. Logeshwaran V, Arungandhi K . (2023) Production of Microbial Biopolymers and its Applications-Review. International Journal of Creative Research Thoughts 11 (12)

Consultancy

Nature of Consultancy	Client	Amount	Completion Status
Student IB Project	Students of TIPS		Completed

Presentations in Conference

- International Conference on Recent Innovations in Health and Biological Sciences-ICRIHBS-2023 Presented Paper in title A Study on Effect of Growth Regulators Tracopa monneri Callus Induction, Axillary Bud and Shoot Proliferation at PSG College of Arts and Science Coimbatore Tamil Nadu India. On 14 & 15- Jul-23.
- International Conference on Recent Trends in Bioscience Presented Paper title on Biopolymer Production from Cassava Starch Incorporated with Recombinant Spider at KSG College of Arts and Science Coimbatore Tamil Nadu India 28-Oct-22
- Indian Science Congress Association, Kolkata Sponsored National Conference on Empowerment of Rural Communities Through Innovations in Science and Technology, Kongunadu Arts & Science College, Coimbatore, 21 & 22 –Feb-20.
- NABARD Sponsored National Seminar on Innovations and Implementation of Modern Technologies in Agriculture & Horticulture – NABARD-2018, Selvamm Arts & Science College, Namakkal, PG and Research Department of Biotechnology on 22-Nov-18 to 24 Nov- 18
- National Seminar on “Challenges and Advances in Microbiology (CAM-2018)”, held at Annamalai University, organized by Department of Microbiology on 1 & 2- Feb- 18.
- One day national seminar on “**Recent Innovations in Biosciences**” Dr. R. V. College of Arts and Science, Karamadai, Coimbatore, Department of Biotechnology on 26 –Aug- 16.

- International Symposium on “Bioscience Research for Present and Future”, “Biomillennium’17”, Vivekanandha College of Arts and Sciences for Women, Department of Biotechnology on 7 and 8-Mar-17.
- International Conference on “Frontiers in Biotechnology”, Nandha Arts & Science College, Erode, Department of Biotechnology on 3- Feb- 17.
- National seminar on “Frontier Research in Applied Biology & Environmental Sciences”, King Nandhivarman College of Arts & Science, Thellar, organized by Department of Biochemistry on 30- Jan-16.
- UGC Sponsored National seminar on “Recent Trends in Botany (RTB-2016)”, Jamal Mohamed College, Tiruchirappalli, PG & Research Department of Botany on 24- Feb-16.
- National seminar on “Recent Innovations in Biosciences NS RIB ’16”, Dr. R.V. Arts and Science College, Karamadai, Coimbatore, organized by Department of Biotechnology on 26- Aug-16.
- Two day National seminar on “Biodiversity products and Industrial Application (BPIA-2015)”, Periyar University, Salem, organized by Centre for Biodiversity and Forest Studies (CBFS) on 28 and 29-Sep-15.
- National Conference on “Technical Advances in Textiles, Physical & Biological Sciences”, held at Nandha Arts and Science College, Erode, Department of Costume Design & Fashion, Physics and Biotechnology on 5 & 6 – Feb-15.
- DBT Sponsored Two Day’s National Seminar on “Recent Advances in Biotechnology and Applied Microbiology”, Kanchi Sri Krishna College of Arts and Science, Kancheepuram, Department of Microbiology on 3 and 4- Mar-14.
- Two Days National Seminar on “Emerging Trends in Microbial Biotechnology”, held at Kanchi Sri Krishna College of Arts and Science, Kancheepuram, Department of Microbiology on 20 and 21- Feb -13.
- One day National level conference on “Biotechnology-Implications and Realities”, held at Sri Krishna Arts and Science College, Coimbatore. Department of Biotechnology, on 30-Jan- 09.
- One-day National level Seminar on “Advances in biological Sciences”, Hindustan College of Arts and Science, Coimbatore. Department of Biotechnology and Microbiology on 8-Aug-06.

- **Participation in Seminars**

1. A national seminar on “Impact of New Education Policy Among Future Generation” at Nallamuthu Gounder Mahalingam college at Pollachi on 10-Aug-2023
2. International Conference on “Indian Rural Public Health and Non-Communicable diseases” at KMCH institute of health sciences and research & KMCH research foundation on 23 & 24 -Jun-23
3. UGC sponsored State level Seminar on “Current strategies in forest Resources Management”, Virudhunagar Hindu Nadar’s Senthikumara Nadar College, Virudhunagar Department of Zoology on 16-Feb-18.
4. Two day’s DBT Sponsored National Conference on “Changing Disease Profile: Challenges Facing Basic and Translational Research in India”, Dr. N.G.P. Arts and Science College, Coimbatore, Department of Biochemistry, on 5 & 6-Oct-16.
5. Two day’s DBT and ICMR Sponsored National Conference on “Transitional and Translational Scenarios in Biological Sciences (3 I’s- *In Vitro* to *In Vivo* to *Silico*)”, Dr. N.G.P. Arts and Science College, Coimbatore, Department of Microbiology In association with IAAM, on 9&10- Sep-16.
6. One day International Symposium on “Public Health Emergency and Disaster Management”, Hindustan College of Arts and Science, Coimbatore, PG and Research Department of Biotechnology and Microbiology, Hindustan College of Arts and Science on 3 – Nov-15.
7. One day National Conference on “Biodiversity Conservation”, Sree Narayana Guru College, Coimbatore, PG and Research Department of Biotechnology on 30 – Sep-15.
8. One day National Conference on “Emerging Education Models for 21st Century Learner (NCEEM-2015)”, Dr. N.G.P. Arts and Science College, Coimbatore, Association of Principals of colleges of Bharathiar University and UGC Human Resource Development Centre, Bharathiar University on 1 - Aug15.
9. One day National Symposium on “Recent Innovations in Biosciences”, Dr. R.V Arts and Science College, Karamadai, Coimbatore, Department of Biotechnology on 17- Oct-14.
10. One day National Symposium on “Momentous Microbes From Menace to

Marvel,PSMM-2014”, Dr. N.G.P. Arts and Science College, Coimbatore, Department of Microbiology on 20- Aug-14.

11. One day National conference on “Recent Trends in Medicinal plants and their products” Dr. N.G.P. Arts and Science College, Coimbatore
12. Department of Biochemistry and Clinical Laboratory Technology on 18-Sep- 13.
13. One day National Symposium on “Perception of Microbes in Human and Environment PSPM-2013”, Dr. N.G.P. Arts and Science College, Coimbatore, Department of Microbiology on 22-Aug-13.
14. Two Day’s International Symposium on “Harnessing Microbes for Human Health and Resource Recuperation-ISHM 2012” Dr. N.G.P. Arts and Science College, Coimbatore, Department of Microbiology on 7& 8- Aug-12.
15. One day National conference on “Emerging Trends in Herbal Research and Cancer Therapy” KMCH College of Pharmacy, Coimbatore, on 26- Jun-12.
16. One day DBT Sponsored Popular Lectures on “Current Trends in Biotechnology and Bioinformatics” Nirmala College for Women, Coimbatore, Department of Botany on 2- Mar-12.
17. NAAC Sponsored Two Day’s National conference on “Achieving Academic Excellence through Internal Quality Assurance Cell (IQAC)” Dr. N.G.P. Arts and Science College, Coimbatore on 9&10- Dec-11.
18. Two Day’s National Symposium on “Biopharmaceuticals-Their application in disease Prevention and health Promotion-NSBP 2011”, Dr. N.G.P. Arts and Science College, Coimbatore, Department of Microbiology on 4 & 5- Aug-11.
19. IAS (Bangalore), INSA (New Delhi) and NAS (Allahabad) Sponsored Two Day’s Science Academies Lecture workshop on “Prospects and Future challenges in Plant Biotechnology”, Dr. G.R. Damodharan College Science, Coimbatore, organized by Department of Biochemistry on 18 & 19- Mar-11.
20. One day National conference on “Issues in Higher Education” Dr.N.G.P. Arts and Science College, Coimbatore, Association of Principals of College (Bharathiar University) and UGC- Academic Staff College (Bharathiar University), on 29- Oct- 10.
21. Two Day’s National Symposium on “Communicable Disease and its Control Measure”, Dr. N.G.P. Arts and Science College, Coimbatore, organized by Department of Microbiology on 4 & 5-Aug-10.
22. ICMR Sponsored Two Day’s National Science Congress on “Genetics, Diagnosis and Therapy” Dr. N.G.P. Arts and Science College, Coimbatore,

organized by Department of Biochemistry and Clinical Laboratory Technology on 20 & 21- Aug- 09.

23. One day International seminar on “Inculcating Innovations”, Dr N.G.P. Arts and Science College, Coimbatore, Department of Biochemistry, on 6- Mar- 09.
24. One day seminar on “Bioscience-A Sustainable virtue”, Dr N.G.P. Arts and Science College, Coimbatore, Department of Biochemistry, on 24- Feb-09.
25. One day seminar on “Motif ‘08” held at Bharathiar University. Department of Bioinformatics, Bharathiar University, Coimbatore on 24- Sep-08.
26. One day International seminar on “Inculcating Innovations”, Dr N.G.P. Arts and Science College, Coimbatore, Department of Biochemistry, on 6-Mar-08.
27. One day seminar on “Motif ‘05” Bharathiar University, Department of Bioinformatics, Bharathiar University, Coimbatore on 6- Oct-05.
28. State level seminar on “Advanced Molecular Biology” by scientists from Indian Institute of Science (IISC), Bangalore PSG College of Arts and Science, Coimbatore on 28& 29- Jan-05.

Participation in Workshop

1. A 6 days workshop attended on “Modern E-Tools And Techniques For Reasearch Article & Thesis Writing” at Koungunadu Arts and Science College at Coimbatore from 6-Oct-22 to 11-Oct-22.
2. One day national workshop on (PCR) Techique on 4-Aug-23 at National Institue Of Food Technology,Entrepreneurship And Management .at Thanjavur
3. SPSS, Centre for Research and Development, Dr. N.G.P. Arts and Science College,13- Mar -10.
4. Motivation, Counseling And Commitment In Teaching Profession, KMCR & E Trust, Dr.N.G.P College Of Education, Coimbatore, 10- Jun-06.
5. Generation & Purification of Polyclonal and Monoclonal Antibodies For the Diagnosis of Infectious Diseases, Department of Microbiology, PSG College of Arts and Science, Coimbatore, 3and 4- Oct-05.
6. Generation and Validation of Multiple Choice Questions for Online Testing, PSG College of Arts and Science, Coimbatore, 17 and 19- Feb-05.
7. RAPD analysis, Biohelix- Bangalore, Department of Microbiology and Biotechnology, PSG College of Arts and Science, Coimbatore, 16 and 17-Feb-05.
8. Molecular and Immunotechniques, Medox Biotech-Chennai, Department of Microbiology and Biotechnology, PSG College of Arts and Science, Coimbatore, 20 and 21- Jan-05.

Participation in Orientation Programme / Short Term Courses

1. Introductory Training programme on Mushroom Cultivation, Agricultural College and Research Institute, Coimbatore, 12- Sep-15.

Participation in Faculty Development Programme

1. Quality Measures in Higher Education, Dr. N.G.P. Arts and Science College, Coimbatore, 3and 9- Dec- 18.

Conference / Seminar / Workshop Organized

- Workshops
 1. Animal Cell Culture Technique, under the DBT STAR College scheme, 30-03-2019.
 2. Operations and Applications of UV-Visible Spectrophotometer, DBT STAR College scheme, 21-Feb-19.
 3. Protein & Nucleic Acid Quantification with Nanophotometer, DBT STAR College scheme, 19-Feb-19.
 4. PCR and Nanophotometer, DBT STAR College Scheme, 13-Feb-19.
 5. Microtome, DBT STAR College scheme, 07-Feb-19.
 6. Nanophotomertic Techniques, DBT STAR College Scheme, 10-Jan-19.
 7. Inspire Internship Science camp, Dr. N.G.P. Arts and Science College 26 to 30-Dec-16.
 8. Downstream processing and its applications , Department of Biotechnology, Dr. N.G.P. Arts and Science College and Centre for Bioscience and Nanoscience Research (CBNR), 15 and 16- Feb-13.
 9. Bioinformatics Tools, Molecular Modeling and Docking Software, Sai's Bioscience and Research Institute and Department of Biotechnology, Dr. N.G.P. Arts and Science College, Coimbatore, 27to 29- Dec-10.
 10. Molecular Immunotechniques, Department of Biotechnology, Dr. N.G.P. Arts and Science College, 19 and 20- Jul-06.
- **Conferences**
 1. Futuristic approaches in Transformation of Bioscience Research – FATBR-2020, 6 and 7- Mar-20.
 2. Recent Trends in Bioprospecting and Its Challenges, 16-Oct-19.
 3. Biodiversity and its Prospecting, 28- Feb-19.

4. Data Analytics and its application in Biotechnology, 14 and 15-Feb-19.
5. Bioprospecting-Indian Perspectives Challenges & Opportunities, Dr. N.G.P. Arts and Science College, 28- Dec-17.
6. Genomics and Proteomics in Bioprospecting- Role in Healthcare Development, Dr. N.G.P. Arts and Science College, 21-Dec-16.
7. Bioprospecting- Initiatives and Challenges, Dr. N.G.P. Arts and Science College, Coimbatore, 28and 29- Dec-15.
8. Biotechnology – Present and Future for sustainable Healthcare Development, Dr. N.G.P Arts and Science College, 29 and 30- Dec-14.
9. Dr. Nalla G Palaniswami Endowment Seminar on “Innovations in Biotechnology, 28- Feb-14.
10. Bioentrepreneur Meet ,Opportunities and Challenges in Bioentrepreneurship, 24-Sep-14.
11. Biotechnology- Present and Future, Dr. N.G.P. Arts and Science College, Coimbatore, Department of Biotechnology , 26 and 27-Sep-13.
12. Perspective of Biotechnology for Healthcare Development, (Funded by DRDO), Dr. N.G.P. Arts and Science College, Coimbatore, Department of Biotechnology, 29 and 30- Dec-11.
13. Recent Trends in Biotechnology, (Funded by DRDO), Dr. N.G.P. Arts and Science College, Department of Biotechnology, 30-Sep- 10 and 1- Oct-10.
14. Advanced Trends in Biotechnology, (Funded by DRDO and ICMR), Dr. N.G.P. Arts and Science College, Department of Biotechnology, 18 and 19- Dec-09.
15. Advanced Trends in Biotechnology, Dr. N.G.P. Arts and Science College, Department of Biotechnology on 19 and 20- Dec-08.
16. Advanced Trends in Biotechnology, Dr. N.G.P. Arts and Science College, Department of Biotechnology, 2 and 3- Feb-07.

Invited Speaker / Session Chair- Conference / Seminar / Workshop

- Invited Speaker, Recent Trends in Biotechnology, Association Guest lecture ,Theivanaiammal Arts and Science College, Villupuram on 09 – Jun-17.
- Invited Speaker, Gel Electrophoresis and its Applications Guest lecture, Meenakshi Ramasamy Arts and Science College ,Ariyalur on 13 – Jul-18.

- Invited Speaker, Applications of Biotechnology in Agriculture , Association Guest lecture ,Bharathidasan University Constituency College Perambalur on 26 – Sep-19.
- Invited Speaker, Motivational Research in Life Science Guest lecture ,Kongu Arts and Science College, Karur on 14 – May-20.

Member in BoS

- Member in UG Biotechnology, Bharathiar University, Coimbatore, Period, since 2013.
- Member in Ph.D Biotechnology, Bharathiar University, Coimbatore, since Jan 2019.
- Member in UG Biotechnology, Kongunadu College of Arts and Science, Coimbatore, since 2019.

Others

- Examiner and question paper setter in G.R.D College of Science, (Autonomous), Coimbatore. Period: 2008 – Till date.
- Examiner in R.V.S College of Arts and Science (Autonomous), Coimbatore. Period: 2008- Till date.
- Examiner and question paper setter in Kongunadu College of Arts and Science College of Science, (Autonomous), Coimbatore. Period: 2008 – Till date
- University Representative: For the conducting of university examinations in various colleges affiliated to Bharathiar University. Period: 2013, 2014 and 2016.

Others

- D.Sunmathi and **K. Arungandhi**, *Pseudomonas aeruginosa* NGP18, 16S ribosomal RNA gene, Partial sequence MH327732
- D. Sunmathi, **K.Arungandhi**, Gayathri. P, Shanmugaraju.V and Indhumathi. E,*Pantoeadisversa* BTNGP1, 16S ribosomal RNA gene, Partial sequence MK610713
- Gayathri. P, Shanmugaraju. V, Indhumathi. E, D.Sunmathi and **Arungandhi. K**, *Bacillus anthracis* BTNGP1, 16S ribosomal RNA gene, Partial sequence MK610723

- Gayathri. P, Shanmugaraju. V, Indhumathi. E, D.Sunmathi and **Arungandhi. K**, *Bacillus velezensis* BTNGP2, 16S ribosomal RNA gene, Partial sequence MK610724
- Indhumathi. E, Shanmugaraju. V, Gayathri. P, **K. Arungandhi** and D.Sunmathi, *Bacillus flexus* BTNGP3, 16S ribosomal RNA gene, Partial sequence MK610727
- D.Sunmathi and **K. Arungandhi**, *Exiguobacterium profundum* BTNGPSA1, 16S ribosomal RNA gene, Partial sequence MK958564
- D.Sunmathi and **K. Arungandhi**, *Vibrio fluvialis* BTNGPSA2, 16S ribosomal RNA gene, Partial sequence MK958565
- D.Sunmathi and **K. Arungandhi**, *Aeromonas caviae* BTNGPSA3, 16S ribosomal RNA gene, Partial sequence MK958566
- D.Sunmathi and **K. Arungandhi**, *Aeromonas caviae* BTNGPSA4, 16S ribosomal RNA gene, Partial sequence MK961218
- D.Sunmathi and **K. Arungandhi**, *Bacillus firmus* BTNGPSA5, 16S ribosomal RNA gene, Partial sequence MK958537
- D.Sunmathi and **K. Arungandhi**, *Bacillus cereus* BTNGPSA6, 16S ribosomal RNA gene, Partial sequence MK956799
- D.Sunmathi and **K. Arungandhi**, *Vibrio furnissii* BTNGPSA7, 16S ribosomal RNA gene, Partial sequence MK956800
- D.Sunmathi and **K. Arungandhi**, *Bacillus oceanisediminis* BTNGPSA8, 16S ribosomal RNA gene, Partial sequence MK956191