

RESUME

Dr. R. KARTHIKA

W/o Mr. A. Sankar

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CAREER OBJECTIVES

- To serve the organization to the best of my ability and to contribute successfully to the overall development of the organization.
- To work in a challenging, motivating and friendly environment.

EDUCATIONAL BACKGROUND

S. No.	DEGREE	NAME OF THE INSTITUTION	UNIVERSITY	YEAR OF PASSING	MARKS OBTAINED
1	Ph.D. (Biotechnology)	Vivekanandha College of Arts and Sciences for Women, Tiruchengode.	Periyar University, Salem.	2017	Awarded
2	M.Phil. (Biotechnology)	Vivekanandha College of Arts and Sciences for Women, Tiruchengode.	Periyar University, Salem.	2014	CPGA: 7.267
3	M.Sc. (Biotechnology)	Vivekanandha College of Arts and Sciences for Women, Tiruchengode.	Periyar University, Salem.	2012	CPGA: 7.280
4	B.Sc. (Biotechnology)	Vivekanandha College of Arts and Sciences for Women, Tiruchengode.	Periyar University, Salem.	2010	63.10 % (I Class)
5	HSC	Govt. Girls Higher Secondary School, Tiruchengode.	Tamil Nadu State Board	2006	65.70 % (I Class)
6	SSLC	Sri Ramachandra Matriculation School, Elachipalayam.	Tamil Nadu State Board	2004	79.54 % (I Class)

ADDITIONAL QUALIFICATION

Passed Diploma in Bioinformatics course conducted by Vivekanadha College of Arts and Science for Women, Tiruchengode (March 2016).

PROFESSIONAL EXPERIENCE

Working as an **Assistant Professor** in the Biotechnology department at **Mahendra Arts & Science College (Autonomous), Namakkal – 637 501** from 2018 June to till date (**4 Years and 8 Months**)

RESEARCH EXPERIENCES

- ❖ Work is done for Ph.D., Programme entitled “**Molecular Characterization and Mutational Studies of Catechol 2, 3 Dioxygenase Gene Towards Hydrocarbon Degradation**”.
- ❖ Project work done during M.Phil. entitled “**Hydrocarbon Degrading Genes and Biogas Production Potential of Selected Bacterial Strains from Diesel Polluted Soil**”.
- ❖ Dissertation work done during M.Sc. entitled “**Isolation and Identification of Microorganisms from Diesel Polluted Soil and its Growth Dynamics under Different Concentration of Diesel**”.

SPECIALIZATION

Environmental Biotechnology, Genetic Engineering, Drug Discovery, Microbial Metabolites and Nanotechnology.

KNOWLEDGE IN COMPUTER

Package: DCA (MS OFFICE - MS Word, MS Power point, MS Excel, Photoshop)

PROFESSIONAL AFFLIATION

- Received **Best Faculty award** from **Nature Science Foundation, Coimbatore (2022)**.
- Received **TNSCST Student Project Scheme (2020-2021) Project**.
- Received **Research fellowship for Research Scholar** from **Tamil Nadu State Council for Science and Technology** from June 2015 to June 2017 (Two Years).

- Received **Enthusiastic Teacher – 2021** award from Nikil Bharat Shiksha Parisad, India.
- **Board of Studies Member** for the **UG BIOTECHNOLOGY Board** from 2022 onwards at Mahendra Arts & Science College (Autonomous), Kalippatti, Namakkal.
- Acting as a **Question paper setter** for various Autonomous colleges as well as an **examiner** for various colleges affiliated in Periyar University, Salem.
- Active Member of **The Biological Science Form.**
- Active member of **The Indian Pharmaceutical Educational Society.**

PATENT PUBLICATION

3. **Karthika R**, Ratnakaram Venkata Nadh, Saini jacob soman, Leelavathi M, Anandhan K C, Jayavathi S D, Shenbagavalli M, Paramaiyappan M, Vinoth Rajkumar G, Kannan V and Logeshwaran J. 2022. **Detection of schizophrenia in adults using Iot based deep learning approach. India**, The Patent Office Journal No. 42/2022 Dated 21/10/2022. Pp. 67456

2. **Karthika R**, Swapnalaxmi K, Venkatachalapathy M, Chandrika R, Richa Gupta, Chavan Radheshyam Thavara, Bhondave Angad Haribhau, Rodage Kailas Dadasaheb , Stella Rose Malar P, Logeshwaran J and Kannan V. 2022. **Analysis and prediction of sugarcane's leaf disease using image processing and machine learning approach. India**, The Patent Office Journal No. 41/2022 Dated 14/10/2022. Pp. 65709.

1. **Karthika R**, Chavan Radheshyam Thavara, Jagannadham DBV, Abdul Rahman H Ali, Ponnu Kangeswari, Alishan Zia, Logeshwaran J, Balaji V, Makhan Kumbhkar, Sutharsan M and Kannan V. 2022. **Classification of Diseases in *Gloriosa superba* Plant using Deep Learning Scheme. India**, The Patent Office Journal No. 24/2022 Dated 17/06/2022. Pp. 37108.

LIST OF JOURNAL PAPER PUBLICATION

5. **Karthika Rajamanickam**, Thirumalaisamy Rathinavel, Periyannan Velu, Subramanian Ammashi , Shanmugam Marimuthu and Muhammad Nasir Iqbal. 2022. **Molecular Insight of Phytocompounds from Indian Spices and its Hyaluronic Acid Conjugates to Block SARS-CoV-2 Viral Entry.** Journal of Biomolecular Structure and Dynamics. Vol.40(15), Impact factor: 5.235.

4. **Karthika R.**, Jayanthi B., Divya D., Indran S., Aruna M., Arjunan S., Selvankumar T., Manikandan E. 2021. **Influence of freeze-drying and fresh cooking on starch morphology and physicochemical and thermal properties of various tropical tubers.** International Journal of Biological Macromolecules, Vol.183. Pp. 1794-1806. Impact factor: 6.953.
3. **Karthika, R.**, Gopinath, L.R., Archaya, S. and Bhuvanewari, R. 2014. **Isolation of Diesel Degrading Bacteria, Identification of Catechol Gene and Its Biogas Production.** IOSR Journal of Environmental Science, Toxicology and Food Technology. Vol.8. Pp 76 – 82. Impact factor: 3.462.
2. **Karthika, R.**, Gopinath, L.R., Archaya, S. and Bhuvanewari, R. 2014. **Isolation and Identification of Microorganisms from Diesel and Petrol Contaminated Soil.** International Journal of Advanced Research. Vol.2(10), 676-682. Impact factor: 1.6.
1. **Karthika, R.**, Gopinath, L.R., Archaya, S., and Bhuvanewari R. 2014. **Study on Bacterial Dynamics of Hydrocarbon Polluted Agricultural Soil.** International Journal of Advances in Interdisciplinary Research. Vol.1, Impact factor: 0.676.

LIST OF BOOK CHAPTER PUBLICATION

4. **Karthika, R.** 2021. **Technologies Involved in the Demulsification of Crude Oil.** Crude oil New Technologies and recent Approaches. IntechOpen, London. ISBN: 978-1-83969-532-2.
3. **Karthika, R.**, Jeyanthi, B., and Selvankumar, T. 2021. **Bioremediation of Hydrocarbons Using Microbial Species.** Microbes for a sustainable Environment and Human Welfare, NOVA Science Publishers, USA. ISBN: 978-1-53619-062-5.
2. **Karthika, R.**, and Jeyanthi, B., 2021. **Role of Microbial Electrolysis Cell in Clean Hydrogen Production.** Microbes for a sustainable Environment and Human Welfare, NOVA Science Publishers, USA. ISBN: 978-1-53619-062-5.
1. **Karthika, R.**, Jeyanthi, B., Selvankumar, T. and Govarthanan, M. 2021. **Microbial Enzymes and their Mechanisms in the bioremediation of Pollutants.** Recent advancements in bioremediation of Metal Contaminants. IGI Global, USA. Pp 3653.

LIST OF NCBI SUBMITTED SEQUENCES

14. **Karthika, R.**, Gopinath, L.R. and Archaya, S. **Bacillus subtilis strain DDBKLRG1 16S ribosomal RNA gene, partial sequence.** ACCESSION:1962040. 2016.

13. **Karthika, R.,** Gopinath, L.R. and Archya. S. *Micrococcus luteus* strain DDBKLRG2 16S ribosomal RNA gene, partial sequence. ACCESSION:1962077. 2016.
12. **Karthika, R.,** Gopinath, L.R. and Archya. S. *Pseudomonasputida* strain DDBKLRG3 16S ribosomal RNA gene, partial sequence. ACCESSION:1962084. 2016.
11. **Karthika, R.,** Gopinath, L.R. and Archya. S. *Escherichia coli* strain DDBKLRG4 16S ribosomal RNA gene, partial sequence. ACCESSION:1962085. 2016.
10. **Karthika, R.,** Gopinath, L.R. and Archya. S. *Mycobacterium flavescens* strain PDBKLRG1 16S ribosomal RNA gene, partial sequence. ACCESSION:1962089. 2016.
9. **Karthika, R.,** Gopinath, L.R. and Archya. S. *Bacillus subtilis* strain KDBKLRG1 16S ribosomal RNA gene, partial sequence. ACCESSION:1962095. 2016.
8. **Karthika, R.,** Gopinath, L.R. and Archya. S. *Bacillus cereus* strain PDBKLRG2 16S ribosomal RNA gene, partial sequence. ACCESSION:1962097. 2016.
7. **Karthika, R.,** Gopinath, L.R. and Archya. S. *Pseudomonas stutzeri* strain PDBKLRG3 16S ribosomal RNA gene, partial sequence. ACCESSION: 19620100. 2016.
6. **Karthika, R.,** Gopinath, L.R. and Archya. S. *Escherichia coli* strain PDBKLRG4 16S ribosomal RNA gene, partial sequence. ACCESSION: 19620101. 2016.
5. **Karthika, R.,** Gopinath, L.R. and Archya. S. *Enterobacter cloacae* strain DDBKLRG5 16S ribosomal RNA gene, partial sequence. ACCESSION:19620103. 2016.
4. **Karthika, R.,** Gopinath, L.R. and Archya. S. *Klebsiella pneumonia* strain KDBKLRG2 16S ribosomal RNA gene, partial sequence. ACCESSION:19620106. 2016.
3. **Karthika, R.,** Gopinath, L.R. and Archya. S. *Pseudomonas aeruginosa* strain KDBKLRG3 16S ribosomal RNA gene, partial sequence. ACCESSION:19620109. 2016.
2. **Karthika, R.,** Gopinath, L.R. and Archya. S. *Mycobacterium bovis* strain KDBKLRG4 16S ribosomal RNA gene, partial sequence. ACCESSION:19620111. 2016
1. **Karthika, R.,** Gopinath, L.R. and Archya. S. *Rhodococcus ruber* strain KDBKLRG5 16S ribosomal RNA gene, partial sequence. ACCESSION.19620114. 2016

PAPERS PRESENTED IN SEMINAR/ CONFERENCE

8. Participated and presented a paper in the International Seminar on “**Recent Scenario in Biotechnological Innovations**” organized by Department of Biotechnology, Mahendra Arts

& Science College, Kalippatti entitled “**Genetic Improvement of Small Millets land Raises through Physical Mutagen**” on 03 March 2020.

7. Participated and presented a paper in the IQAC Sponsored one day State Level Seminar on “**Recent Advances in Biological Sciences**” organized by Arignar Anna Government Arts College, Tiruvannamalai entitled “**Isolation and Identification of Effective Diesel Degrading Bacteria**” on 3 October 2016.

6. Participated and presented a paper in the International Conference on **Converging Biotechnological Innovations in Environmental Welfare** organized by Department of Biotechnology, K.S.G College of Arts and Science, Coimbatore entitled “**Genetic Improvement of Little Millets from Kolli Hills through Physical Mutation**” on 19 September 2016.

5. Participated and presented a paper in the International Symposium on “**Bioscience Research for Present and Future**” organized by Department of Bioscience, Vivekanandha College of Arts and Science for Women, Tiruchengode entitled “**Biogas Production from Diesel Degrading Bacteria and Identification of Catechol Gene**” on 14 December 2015.

4. Participated and presented a paper in the International Symposium on **Bioscience Research for Present and Future**” organized by Department of Bioscience, Vivekanandha College of Arts and Science for Women, Tiruchengode entitled “**Biogas Production from Diesel Degrading Bacteria and Identification of Catechol Gene**” on December 2015

3. Participated and presented a paper in the International Conference on “**Physiology and Medicine**” organized by Department of Zoology, Periyar University, Salem entitled “**Isolation of Diesel Degrading Bacteria, Identification of Catechol Gene and its Biogas Production**” on October 2014.

2. Participated and presented a paper in the International Symposium “**Bioscience Research for Present and Future**” organized by Department of Bioscience, Vivekanandha College of Arts and Science for Women, Tiruchengode entitled “**Molecular Characterization of Diesel Degrading Bacteria Isolated from Diesel Polluted Soil**” on November 2013.

1. Participated and presented a paper in the National Level Seminar on **Applications of Biology to Human Welfare** organized by Sri Ganesh College of Arts and Science entitled “**Identification of Microorganisms from Diesel Polluted Soil and Its Growth Dynamics under Different Concentration Of Diesel**” on January 2013.

POSTER PRESENTED IN SEMINAR/ CONFERENCE

4. Participated and presented a poster in the International Conference on “**Biomolecules and their Prospects**” organized by Department of Biotechnology, Selvamm Arts and Science College, Namakkal entitled “**Isolation of Diesel Degrading Bacteria and Identification of Catechol Gene**” on 8 July 2016.
3. Participated and presented a poster in the International Conference on “**Physiology and Medicine**” organized by Department of Zoology, Periyar University, Salem entitled “**Isolation of Diesel Degrading Bacteria Identification of Catechol Gene and Its Biogas Production**” on October 2014.
2. Participated and presented a poster in the International Conference on “**Computational Biotechnology and Nanotechnology**” organized by Department of Bioscience, Vivekanandha College of Arts and Sciences for Women, Tiruchengode entitled “**Biopesticides**” on October 2010.
1. Participated and presented a poster in the National Conference on “**Advancement in Transgenic Technology**” organized by Department of Bioscience, Vivekanandha College of Arts and Sciences for Women, Tiruchengode entitled “**Bioplastics from Plants**” on September 2009.

WORKSHOP/ FDP/ TRAINING PROGRAM ATTENDED

16. Completed a **Lead Auditor Course** on “Environment Management System, Green Campus Audit, Energy Audit and Hygiene Audit to Educational Institutions and Industrial Sectors” organized by Nature Science Foundation, Coimbatore from 2022 September 26 – 30.
15. Participated in the online elementary FDP on “**Computer Aided Drug Design in Drug Discovery**” organized by AICTE Training & Learning (ATAL) Academy and All India Council for Technical Education, New Delhi at Indian Institute of Information Technology, Allahabad on 2021 September 6 – 10.
14. Participated in the online elementary FDP on “**Fermentation Technology & Biochemical Engineering**” organized by AICTE Training & Learning (ATAL) Academy and All India Council for Technical Education, New Delhi at Jeppiaar Engineering College, Chennai on 2021 August 2 – 6.

13. Participated in the **SPARC Sponsored International Online Short Term Course on “Recent Applications of Polymers”** conducted by **Department of Microbiology**, Alagappa University, Karaikudi on 2021 May 3 – 5.
12. Participated in the one week online National Faculty Development Program on **“E-Contents and ICT Tools for Innovative Teaching & Learning”** organized by RCP Universe Group of Institutions, Roorkee on 2021 May 1 – 7.
11. Participated in the E-course on **“Kitchen Waste Based Biogas Plant”** conducted by Vivekananda Kendra, NARDEP on 2021 April 30.
10. Participated in the 21 days virtual training on **“in silico biology”** conducted by Biosrishti from 2021 March 29 - April 24.
9. Participated in the Faculty Development Programme on **“Artificial Intelligence and Machine Learning in Biological Data Analysis”** conducted by Department of Computer Science, Information Technology and Computer Applications, PSGR Krishnammal College for Women, Coimbatore on 2021 March 29.
8. Participated in the National webinar on **“Plagiarism in Research”** organized by Department of Library and Information Science, Periyar University, Salem on 2021 March 17.
7. Participated in Online certificate course on **“Ms-Office & Google Drive: Useful Tools for Teacher”** conducted by Wellness Gurukul Academy Pvt. Ltd., New Delhi on 2021 February 14 - 28.
6. Participated in the Training Workshop on **“Animal Cell Culture Techniques”** conducted by Department of Biotechnology & Department of Chemistry, Mahendra Arts & Science College, Kalippatti on 2019 September 14.
5. Participated in the National Level Workshop on **“Chem-Informatics”** conducted by Department of Biotechnology & Chemistry, Mahendra Arts & Science College, Kalippatti on 2019 January 30.
4. Participated in the Lecture workshop on **“Biodiversity and Bioremediation”** conducted by Karpagam University, Coimbatore on 2016.
3. Participated in the National workshop on **“Mushroom Cultivation”** conducted by Department of Biotechnology, Selvam Arts and Science College (Autonomous), Namakkal on 2015.

2. Participated in the workshop on “**Bioinformatics Tools and Applications**” conducted by Department of Bioscience, Vivekanandha College of Arts and Sciences for Women, Tiruchengode on 2011.

1. Participated in the Ministry of Science and Technology (DBT), Govt. of India Sponsored workshop on “**Agri Biotechnology for Healthy Environment, Rural Development and Self Employment**” conducted by Department of Biotechnology, Vivekananda College of Arts and Sciences for Women, Tiruchengode on 2010 March 5 & 6.

SEMINAR/ CONFERENCE ATTENDED

4. Participated in the Two day International Virtual Conference on “**Advanced Materials for Emerging Technologies (ICAMET-21)**” organized by Research Faculty Enrichment Council (RFEC), Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore on April 2021.

3. Participated in the National seminar on “**Research Paper Writing & Patent Filing**” organized by Department of Bioscience, Vivekanandha College of Arts and Sciences for Women, Tiruchengode on August 2016.

2. Participated in the National seminar on “**Brain Based Curriculum Development**” organized by Department of Bioscience, Vivekanandha College of Arts and Sciences for Women, Tiruchengode on March 2016.

1. Participated in the National seminar on “**Biotechnology and Global Warming**” organized by Vivekanandha College of Engineering for Women, Tiruchengode on March 2011.

BIOTECHNOLOGY TECHNIQUES HANDLED

- Microbial Techniques
- Molecular Biology Techniques
- Genetic Engineering Techniques
- Plant tissue culture techniques
- Animal Tissue culture
- Bioinformatics
- Plant Biotechnology

PERSONAL INFORMATION

Name : Dr. R. KARTHIKA

Father's Name : Mr. K. Rajamanickam

Date of Birth : 04-06-1989
Gender : Female
Religion : Hindu
Nationality : Indian
Mother tongue : Tamil
Marital Status : Married
Languages Known : English and Tamil (Read, Speak and Write) & Hindi (Speak)
Permanent Address : Door No.: 5-136, Kuttaikadu,
Olapalayam,
Elachipalayam (Po)
Tiruchengode (TK),
Namakkal (DT) – 637 202.

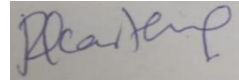
DECLARATION

I hereby declare that the details furnished above are true and correct to the best of my knowledge and belief.

Tiruchengode,

22-01-2023

Yours faithfully,



(Dr. R. KARTHIKA)