

### Dr. RM. Vidhyavathi Assistant Professor

| Contact                          |  |    |
|----------------------------------|--|----|
| Address                          | : Department of Bioinformatics           |    |
|                                  | Alagappa University, Karaikudi - 630 003 |    |
|                                  | Tamil Nadu, INDIA                        |    |
| Employee Number                  | : 34403                                  |    |
| Date of Birth                    | : 19-05-1979                             |    |
| Contact Phone (Office)           | : +91 4565 223343                        |    |
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| Academic Qualifications:         |  |    |
| Degree                           | Year of Passing University / Institut    | e  |
| M. Sc. (Computer Science)        | May, 2005 Madras University              |    |
| M. Phil (Computer Science)       | Mar, 2007 Alagappa University            |    |
| M. Tech (Information Technology) | Apr, 2010 Sathyabama Universit           | ty |
| Ph. D (Computer Science)         | Feb, 2014 Alagappa University            |    |
|                                  |  |    |

# **Teaching Experience: 7.2 Years**

| Designation         | Institution                       | Department                          | Duration              |
|---------------------|-----------------------------------|-------------------------------------|-----------------------|
| Assistant Professor | Alagappa University,<br>Karaikudi | Bioinformatics                      | Aug 2015 to till date |
| Teaching Assistant  | Alagappa University,<br>Karaikudi | Computer Science and Engineering    | Jul 2014 to Apr 2015  |
| Teaching Assistant  | Alagappa University,<br>Karaikudi | Computer Science<br>and Engineering | Jul 2013 to Apr 2014  |

| Senior Lecturer     | Madha Institute of<br>Engineering and<br>Technology, Chennai | Information<br>Technology           | Jun 2010 to Jan 2011 |
|---------------------|--|-------------------------------------|----------------------|
| Senior Lecturer     | Jaya Engineering<br>College, Chennai                         | Computer Science<br>and Engineering | Aug 2006 to May 2010 |
| Desearch E-marianes | 0.4  |                                     |                      |

**Research Experience: 9.4 years** 

| Addition | nal Responsibilities   |
|----------|--|
| S. No.   | Position   |
| 1.       | Co-ordinator, Placement cell   |
| 2.       | Co-ordinator, SwayamCourse   |
| 3.       | Secretary, School of Biological Sciences Alumni                                    |
| 4.       | Co-ordinator, NME (June 2019-May 2020)   |
| 5.       | Co-ordinator, Azaghu/Departmental Magazine   |
| 6.       | Training Officer, Vivekananda Cadet Corps(July 2016-June 2017)                     |
| 7.       | Member, Centre for Yoga Education  |
| 8.       | Co-ordinator, Department Alumni and Parent Teacher Association                     |
| 9.       | Co-ordinator, Department Website and Computer Maintenance Committee                |
| 10       | Member, Department Research Committee  |
| 11.      | Member, Department Purchase Committee  |
| 12.      | Member, Department Employability Skills and Career Guidance                        |
| 13.      | Executive Member, Alagappa University Faculty Association (ALUFA)(2016-2019)       |
| 14.      | Member, Symposium and Association coordinator in Jaya Engineering College Chennai. |
| 15.      | In-charge of Alumni in Jaya Engineering College Chennai                            |
| 16.      | In-charge of Department Library in Madha Institute of Engineering and Technology,  |
|          | Chennai.   |
| A        | Desearch   |

#### **Areas of Research**

Data mining and Data Warehousing, Database Security, Bioinformatics,Networking, Database Management System, Network Security, Information Security, Cloud Computing, Big Data Analysis and Computational Biology

# **Research Supervision / Guidance**

| Pro          | ogram of Study | Completed | Ongoing |
|--------------|----------------|-----------|---------|
|              | Ph.D.          | -         | -       |
| Research     | M.Phil.        | -         | -       |
|              | M.Tech         | -         | -       |
| Project      | M.Sc           | 9         | -       |
|              | P.G.D.S.P      | 1         |         |
|              | UG / Others    | 5         | -       |
| Publications |                |           |         |

| International |             | National |             | Others  |
|---------------|-------------|----------|-------------|---|
| Journals      | Conferences | Journals | Conferences | Books / Chapters<br>/ Monographs /<br>Manuals |
| 14            | 2           | -        | 9           | -   |

| Cumulative Impact Factor (as per JCR) | : | 23.64 |
|---------------------------------------|---|-------|
| h-index                               | : | 7     |
| i10                                   | : | 7     |
| Total Citations                       | : | 350   |

### **Funded Research Projects**

# **Completed Projects:**

| S.<br>No |                           | Per  | riod |   | Budget<br>(Rs. In |
|----------|---------------------------|------|------|---|-------------------|
| NU       | Agency                    | From | То   | Project Title (RS. )<br>lakhs   |                   |
| 1        | AURF<br>Start up<br>Grant | 2015 | 2017 | Classification of hierarchical clustering with<br>FP-Growth algorithm to analyzing and<br>creating the solution for chromosomal<br>disorder | 0.80              |

# **On-going Projects:**

| S.<br>No |        | Per  | riod |   | Budget (Rs.<br>In lakhs)           |
|----------|--------|------|------|---|------------------------------------|
| NO       | Agency | From | То   | Project Title In lak  |                                    |
| 1        | RUSA   | 2019 | 2020 | MEDDB: DEVELOPMENT OF SPECIALIZED<br>ANTIDENGUE DATABASE USING<br>ASSOCIATION RULE MINING ALGORITHM | First<br>Installment()<br>4,80,000 |

#### **Distinctive Achievements / Awards**

#### **Events organized in leading roles**

Number of Seminars / Conferences / Workshops / Events organized:

- Organizing Committee Member, International Conference on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" 2019.
- Organizing Committee Member, 11<sup>th</sup> National Symposium cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" and 2<sup>nd</sup> Annual Meeting of Bioinformatics and Drug Discovery Society [BIDDS] – 2019.
- Organizing Committee Member, 10<sup>th</sup> National Symposium cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" and 1<sup>st</sup> Annual Meeting of Bioinformatics and Drug Discovery Society [BIDDS] – 2018.
- > Parents Teacher Association Meet organized by Coordinators on 4<sup>th</sup> Mar2017.
- Organizing Committee Member, 8<sup>th</sup> National Symposium Cum Workshop on Recent Trends in Structural Bioinformatics and Computer Aided Drug Design (SBCADD-2017), 14<sup>th</sup> -17<sup>th</sup> Feb, 2017.
- School of Biological Sciences Alumni Meet organized by Alumni Office Bearers on 4<sup>th</sup> Jan 2017.
- Organizing Committee Member, 8<sup>th</sup> National Symposium Cum Workshop on Recent Trends in Structural Bioinformatics and Computer Aided Drug Design (SBCADD-2016), 16<sup>th</sup> -19<sup>th</sup> Feb, 2016.

#### **Events Participated (optional)**

#### **Conferences / Seminars / Workshops:**

| 1. | Participated, Faculty Development Program organized by IEEE Madras Section on<br>"Practical Exposure on Fundamental Mathematics behind Machine Learning", IEEE<br>Madras Section and Department of Computer Science and Engineering SRM Institute of<br>Science and Technology, from May 10-13, 2021. |
|----|---|
| 2. | Participated "Two Week Online Capacity Building Programme For Faculty Members and Research Scholars" organized by Alagappa University Under the sponsorship of UGC Stride Component-1 from 12 <sup>th</sup> June 2020-23 <sup>rd</sup> June 2020.   |
| 3. | Participated, "A National Level 3 Day Virtual Faculty Development Program on "Moving<br>To Master Science In Technology (MMST: 2020)", Organized by Freshmen Engineering<br>Department from 18th -20th June 2020.   |

| 4.  | Participated "Machine Learning Techniques for Image Processing Approaches",   |
|-----|---|
|     | organized by Department of Computer Science, Mother Teresa Women's University on  |
|     | 19th & 20th June 2020.  |
| 5.  | Participated, Savanth An IEEE International Webinar Series, "Finding Needles in a Haystack: Liquid Biopsy for Nucleic Acid and Protein Molecular Biomarkers for Disease     |
|     | Diagnosis" organized by St. Joseph's Institute of Technology, Department of Electronics   |
|     | and Communication Engineering, 19 <sup>th</sup> June 2020.  |
| 6.  | Participated, Savanth An IEEE International Webinar Series, "Developing Flexible and  |
| 0.  | Spectrally Efficient Photonic Systems Using Frequency Combs" organized by St.   |
|     | Joseph's Institute of Technology, Department of Electronics and Communication   |
|     | Engineering, 18 <sup>th</sup> June 2020.  |
| 7.  | Participated, Savanth An IEEE International Webinar Series, "Reproducibility and  |
|     | Benchmarking in AI and Robotics " organized by St. Joseph's Institute of Technology,  |
|     | Department of Electronics and Communication Engineering, 17th June 2020.  |
| 8.  | Participated, Savanth An IEEE International Webinar Series, "Big Data, IOT, Enterprise  |
|     | Data Management and the New data Requirements of Drones and Robotics Inspection   |
|     | Devices" organized by St. Joseph's Institute of Technology, Department of Electronics   |
|     | and Communication Engineering, 16 <sup>th</sup> June 2020.  |
| 9.  | Presented a paper in the "11 <sup>th</sup> National Symposium cum Workshop on "Recent Trends in   |
|     | Structural Bioinformatics and Computer Aided Drug Design " entitled Jaundb:A Jaundice   |
|     | database Developed using data mining algorithm for therapeutically aid, Department of   |
|     | Bioinformatics, [SBCADD'2019], Alagappa University, Karaikudi, 12 <sup>th</sup> – 15 <sup>th</sup> February   |
| 10  | 2019.<br>Presented a neuron in the" Recent Trands in Drug Discovery, Development and Terrested  |
| 10. | Presented a paper in the" Recent Trends in Drug Discovery, Development and Targeted Delivery System for Cancer", entitled Identification of Potent Inhibitor from Medicinal |
|     | Plants for ABL Kinase Involved in Cervical Cancer through <i>In silico</i> Approach.,   |
|     | Department of Biochemistry J.J College of Arts and Science, Pudukottai, 26th-27 <sup>th</sup>   |
|     | September 2019.   |
| 11. | Presented a paper in the "International Conference on Engineering, Medicine, Science &  |
|     | Technology, Kuala Lumpur", entitled An efficient deep neural network based  |
|     | classification model for dengue fever prediction, MAHSA University, Kuala Lumpur,   |
|     | Malaysia, 14 <sup>th</sup> -15 <sup>th</sup> October 2019.  |
| 12. | Participated "International Conference on Computational Intelligence and Applications   |
|     | (ICCIA-2019)", Department of Computational Logistics, Alagappa University, Karaikudi,   |
| 12  | 8 <sup>th</sup> -9 <sup>th</sup> August 2019.<br>Presented a paper in the "First International Conference on Computational Science  |
| 13. | (ICCS-2019)",entitled Medicinal Plants Database for Dengue, Tuberculosis and Jaundice:  |
|     | A Common platform for Genomic, Chemical and Traditional information, Department of  |
|     | Computer Science, Alagappa University, Karaikudi, 23rd-24th October 2019.   |
| 14. | Participated "Three-day International Workshop on E-Content Development for MOOCs   |
|     | among the Faculty Members", Digital Education Cell, Alagappa University, Karaikudi,   |
|     | $10^{\text{th}}$ to $13^{\text{th}}$ September 2019.  |
| 15. | Participated "Two-Day International Conference on Recent Trends in Bioplastics",  |
|     | Department of Microbiology, Alagappa University, Karaikudi, 9 <sup>th</sup> and 10 <sup>th</sup> December   |
|     | 2019.   |
| 16. | Presented in the paper "International Conference on Recent Trends in Structural   |
|     | Bioinformatics and Computer Aided Drug Design", entitled In Silico Identification and   |
|     | Screening of Potent Bioactive Compound from AcanthophoraSpicifera against Lung  |
|     | Cancer, Department of Bioinformatics, Alagappa University, Karaikudi,11 <sup>th</sup> to 13 <sup>th</sup>   |
| ·   | December 2019 .   |
| 17. | Presented a paper in the "10 <sup>th</sup> National Symposium cum Workshop on "Recent Trends in   |
|     | Structural Bioinformatics and Computer Aided Drug Design " entitled Dendb:  |
|     | Development Of Specialized Antidengue Database Using SVM And ARM Algorithms   |
|     | [SBCADD'2018].  |

| 18. | Presented a paper in the "9 <sup>th</sup> National Symposium cum Workshop on Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" entitled SCN5A Gene |
|-----|---|
|     |   |
|     | SNP's in Irritable Bowel Syndrome and Its Influence in Structural Variance  |
|     | [SBCADD'2017].  |
| 19. | Presented a paper in the "9 <sup>th</sup> National Symposium cum Workshop on Recent Trends in   |
|     | Structural Bioinformatics and Computer Aided Drug Design" entitled as Computational   |
|     | identification of potent inhibitors for Streptomycin 3"-adenylyltransferase of Serratia   |
|     | marcescens [SBCADD'2017].   |
| 20. | Participated in the National Workshop on "Career Prospects and Developments in  |
|     | Computer Science "Organized University Business Collaboration Centre &  |
|     | Development of Computer Science held on 27.02.2017 and 28.02.2017 at Alagappa   |
|     | University, Karaikudi   |
| 21. | Participated in the International Workshop on "Molecular Physiology, Therapeutics and   |
| 21. | Experimental Medicine" conducted by Department of Animal Health and Management  |
|     | held on 06.09.2016 and 07.09.2016 at Alagappa University, Karaikudi.  |
| 22. | Presented a paper in the "National Seminar on Advances in Computer science" entitled  |
| 22. | Computational Algorithms and its Applications in Modern Biology, organized by the   |
|     | Department of Computer Science, Alagappa University, Karaikudi.   |
|     |   |
| 23. | Participated in the International Workshop on, "Data Science and Analytics" conducted   |
|     | by Department of Computer Science held on 27.09.2016 and 28.09.2016 at Alagappa   |
|     | University, Karaikudi.  |
| 24. | Faculty Development Program on "Cloud Infrastructure and Services" at Alagappa  |
|     | University, Karaikudi held on 23.02.2015 to 27.02.2015.   |
| 25. | Faculty Development Program on "Free and Open Source Software" at Jaya engineering  |
|     | college held on 23.11.2009 to 27.11.2009.   |
| 26. | Anna University Sponsored FDP on "Object-Oriented Analysis and Design" held on  |
|     | 07.05.2007 to 21.05.2007.   |
| 27. | Participated in the I.T National Conference on, "Web Technology and Open Source",   |
|     | conducted by Jaya Engineering College held on 08.03.2007 and 09.03.2007 at CLRI   |
|     | Campus, Chennai.  |
|     | Sumpas, Shoman  |

### **Recent Publications**

- 1 Muthumanickam Sankar, Balajee Ramachandran, Boomi Pandi,Nachiappan Mutharasappan, Vidhyavathi Ramasamy, Poorani Gurumallesh Prabu,Gowrishankar Shanmugaraj, Yao Wang4, Brintha Muniyandai,Subaskumar Rathinasamy, Balakumar Chandrasekaran, Mohammad F. Bayan,Jeyakanthan Jeyaraman, Gurumallesh," *In silico* Screening of Natural Phytocompounds towards Identification of Potential Lead Compounds to Treat COVID-19" Frontiers in Molecular Biosciences July 2021, (Impact Factor: 5.249).
- 2 Thangarasu Suganya Devi, Karuppiah Vijay, **R. M. Vidhyavathi,**Ponnuchamy Kumar,Muthusamy Govarthanan & Thangavel Kavitha, "Antifungal activity and molecular docking of phenol, 2,4-bis(1,1dimethylethyl) produced by plant growth-promoting actinobacterium *Kutzneria* sp. strain TSII from mangrove sediments", *Archives of Microbiology* May 2021, (**Impact Factor:** 2.552).
- 3 Sundararaj Rajamanikandan,Soundarapandian Soundarya,Anandhi Paramasivam,Dhamodharan Prabhu, Jeyaraman Jeyakanthan &Vidhyavathi Ramasamy," Computational identification of potential lead molecules targeting rho receptor of *Neisseria gonorrhoeae*", Journal of Bimolecular Structure and Dynamics, Feb 2021, (Impact Factor:3.31).

4 Jesudass JosephSahayarayan, Kulanthaivel SoundarRajan, RamasamyVidhyavathi, Mutharasappan Nachiappan, DhamodharanPrabhu,SalehAlfarraj, SelvarajArokiyaraj, Amalorpavanaden, NicholasDaniel "Antifungal activity and molecular docking of phenol, 2,4-bis(1,1-dimethylethyl) produced by plant growth-promoting actinobacterium *Kutzneria* sp. strain TSII from mangrove sediments", Saudi Journal of Biological Sciences,January 2021,(Impact Factor:4.219).