

GMU - Faculty & Staff Profile Templet



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Dr. GURUMURTHY H

Director, School of Applied Sciences

Faculty

Faculty of Basics and Applied Sciences

School / Program

B.Sc.in Biotechnology

Faculty Introduction

Dr. Gurumurthy H completed M.Sc in Life Sciences, Postgraduate Diploma in Bioinformatics, and Ph.D. in Biotechnology specialized in Plant Biotechnology, Bioinformatics. Serving as Director of the School of Applied Sciences, Faculty of Basic & Applied Sciences at GM University, Davangere, overseeing undergraduate and postgraduate programs in Biotechnology, Microbiology, Food Science & Technology, and M.Sc in Food Technology. In research focusing on understanding the impact of Bioactive compounds in therapeutic applications in tissue engineering and chronic lifestyle disorders, published about 26 journal articles, seven patents, conference papers, books and book chapters.

Qualifications

Ph.D. Biotechnology

Kuvempu University, Shimoga, 2010

PG Diploma in Bioinformatics

Mysore University – Shimoga, 2003

M. Sc. Life sciences

Kuvempu University – Shimoga, 2001

Experience 3.

Teaching

- 21 Years at GMIT,Davangere

Research

Characterization of Bioactive compounds for Antioxidant and Anti-inflammatory work.

Training Program Attended

1. Two days Leadership Training program-at Chennai
2. Five days Mission 10x Workshop at UBDTE,Davangere

Research Interest

1. Plant Biotechnology
2. Bioinformatics
3. Waste management

Awards & Achievements

1. Best Research paper award in 1st International Conference on Computational Engineering and Material Science ,18th July-2020
2. State best students project award by KSCST-2024
3. Delivered a technical talk on Stem Cells and Their Biomedical Applications Govt. First Grade college Davangere - on the occasion of 200th Birth Anniversary of Gregor Johann Mendel Organized by Department of Zoology
4. Delivered a technical talk on Emerging Trends in Biotechnology at PM Shri Green School Shivomogga

Publication / Patents

1. Patents:

1. A Single Window Documentation Procedure for Multiple Assessment and Appraisal Requirements, Application No.202041029920 A
2. An Antioxidant Compound Extracted from Roots Mangiferaindical Var. Rasapuri, Application No. 202141007062 A
3. Ofom Formulations As The Soil-Free Medium In Burgeon Plants Cultivation, Application No .2021613457890
4. Extraction of anti-odour compound from Arabidopsis thaliana and treating foul smell in recycled sewage water. Application No. 202441100128

5. Devising of organic eco-friendly compost fertilizer for value added crops, Application No.202441100004

6. Designing of Sustainable water filter using vetiver for commercial use

7. Development of Biowrappers using Banana Pseudo stem,sugar cane bagasse and Areca nut husk

8. Innovating sustainable water filter with pithophora algae and activated carbon

2. Ph.D. Dissertation:

1. "Identification And Evaluation of Potential Lead Compound For Parkinson's Disease By Insilico And Proteomics Approach" Mr.Vivek Chandra Mohan-VTU-2023

2. "Pharmacognostic evaluation of various extract from wild species of Musa" Mr. Rakesh N R,VTU-2023

3. Insilico Characterization of Tuberculosis Strains: Aphylogenetic Approach" Mr. Ganesh Tilve, VTU-(M.Sc By Research)-2012

3. National Conference Papers:

1. Presented a Research paper in **National conference** on Biotechnology and Society (NCBS-2012) on 19th and 20th April 2012 at Department of Biotechnology and Bioinformatics, Kuvempu University, Jnana Sahyadri, Shankaragatta, Shivamogga.

2. Presented a Research paper on "Alzimer's Weblog". In **National Level Technical fest** held at G.M.Institute of Technology, Davangere on 4th and 5th September-2015

4. International Conference Papers:

1. Presented a Research paper on "Anti bacterial activity of leaf extracts of *abutilon indicum*". In **International Conference (NHBT)** on 26th to 29th November, 2007 at Trivandrum, Kerala.

2. Presented a Research poster in International Conference-LASACON - 2024 at Navi Mumbai

5. National Journal Papers:

1. H. S. Ravikumar Patil, Makari H. K. **Gurumurthy H.**, Mukunda S, Prasheeth Kekuda, Chetan D M, Anilkumar H S. Effect of Cow Urine on fungal Spore Germination. *Biotechnology:An Indian Journal (TSI)*. V 1 (3). 130-134. 2007. ISSN(0974-7435) Impact factor :0.03
2. H. S. Ravikumar Patil, Makari H. K. **Gurumurthy H.**, H.L.Raghavendra,D.M.Chetan, H.S.Anilkumar. Antifungal potency of cow urine. *Reasearch and Reviews in Biosciences* 1(4-5),196-198, 2007 ISSN(0974-7532) Impact factor :0.08
3. H. S. Ravikumar Patil, **Gurumurthy H.**, Makari H K, Madhukar B M, Maruthi K.R, Divakara Regeneration Of Rice Via Somatic Embryogenesis And Variant Analysis Using RAPD. *Biotechnology:An Indian Journal (TSI)* vol.2,1,2008 (08-14) ISSN :(0974-7435) IF:0.03
4. H. S. Ravikumar Patil, Rekha Chinnikate, Makari H. K. **Gurumurthy H.**, In-vitro Screening of Stress Tolerant Legume Plants. *EJEAFChe* 7(11) 3334-3352,2008. ISSN (1579-4377) HI :16
5. H. S. Ravikumar Patil, Makari H. K. **Gurumurthy H.**, Ramalingappa, Mukunda S, Prasheeth Kekuda, Chetan D M. Anilkumar H S. Effect of Agnihotra on Air borne Microorganisms. *Environmental Science An Indian Journal*, Vol 3, Issue2, 2008. ISSN:0974-7451.(233-239) Impact factor :0.07

- **6.H. Gurumurthy**, V. Krishna, H.S. Ravikumar Patil, Suresh P. Babu: A preliminary phytochemical Studies on the seeds of *Celastrus paniculata*, Willd. *The Internet journals of*

Pharmacology, Vol 6, Number 1, 2008. ISSN: 1531-2976
.H1:5.IF:0.23

7. H. S. Ravikumar Patil, Makari H. K. **Gurumurthy H.** In-Vitro Biosorption of Lead and Zinc by using Living Biomass of *Aspergillus oryzae*. *Journals of Environmental Science*, an Indian Journal. Vol 3, Issue 2, 2008. 194-196. ISSN:0974-7451.IF:0.07

8. H.S.Ravikumar Patil, T.R.Prashath Kekuda, H.K.Makari, **H.Gurumurthy**. Invitro Antimicrobial Activity of Ethanol extract from *Thevetia peruviana*. *Biotechnology; An Indian journal*, Vol 2, Issue 1, 2008. 05-07. ISSN :(0974-7435) IF:0.03

9. H.S.Ravikumar Patil, H.K.Makari, **H.Gurumurthy**. Polyphenol composition of Nutraceuticals concentration obtained from edible vegetables oil seeds, (*EJEAFChe*) *Electronic Journal of Environmental Agricultural and Food Chemistry*, ISSN (1579-4377), 7(8), 2008, 3181-3198

10. Gurumurthy H Ramachandra Y L , Padmalatha rai, Ravikumar Patil H S , Suresha Babu, P *Invitro* Antimicrobial studies on *Aerva lanata* juss. *Journal of Environment and Ecology* Vol 27, No 1. 32-35. 2009, ISSN(0970-0420)

11. H.S.Ravikumar Patil, H.A.Sayeswara, **H.Gurumurthy**, H.K.Makari, M.Abhilash, K.L.Naik Preliminary Phytochemical Evaluation And Antibacterial Studies on *Vitex altissima* L *Biotechnology An Indian Journal*, Vol.3, Issue 2, 2009, 60-62, ISSN(0974-7435) IF:0.03

6. International Journal Papers:

1. L. Ramachandra, K. Shilali, Mansoor Ahmed, H. V. Sudeep, B.T. Kavitha, **H.Gurumurthy** and S. Padmalatha Rai. *Hepatoprotective properties of Boerhaavia diffusa and Aerva lanata against carbon*

tetra chloride induced hepatic damage in Rats.
Pharmacologyonline 3:435-441,2011.ISSN(1827-8620)HI:16.IF:0.37

2. Gurumurthy H, Dr.Y.LRamachandra, and S. Padmalatha rai. In-vitro Antibacterial study on leaf extracts of *Abutilon indicum*-Linn. *Electronic Journal of Environmental, Agricultural and Food chemistry*.Issue 10.Vol.2.2011(1892-1896) ISSN(1579-4377)HI:16

3. Gurumurthy.H, Divya.V Prashantha Nagaraj Statistical Analysis of Microarray Data to Elucidate the Differential Gene Expression of *Puccinia striiformis F.sp.tritici*.*International Journal of Engineering Research & Technology (IJERT)*,Vol. 3 Issue 8, 2014.ISSN(2278-0181),744-750.IF:2.70

4. H. Gurumurthy, Akshatha M, Manjunath Dammalli. A Novel Approach for Cigarette Smoke-Induced differential Gene Expression in Blood Cells from Monozygotic Twin Pairs *International Journal of Engineering Research & Technology (IJERT)*,Vol.3 Issue 8, August – 2014.ISSN(2278-0181),596-601.IF:2.70

5. Gurumurthy.H., Miss Jyothi U Bhatkal., Miss Siridevi G B., Mr. Ganesh G Tilve. In-Silico Docking Studies on Insecticide Resistance Acetylcholinesterase (Ache) Gene in *Aphis gossypii* and *Bemisia tabaci*. *International Journal of Innovative Research in Science and Technology (IJIRST)*, Vol 1,Issue 6 / 016, 2014.ISSN(2349-6010),87-92.IF:4.116

6. Gurumurthy.H, Srivindya Pooja k and Vaivek Chandra Mohan. Comparative Genomic, Proteomic and Phylogenetic Analysis on different Tubercolosis strains *International Journal of*

Pharmaceutical Science and Health Care(IJPHC),ISSN(:2249-5738),
2015.:65-72.IF:3.11

7. **Gurumurthy.H**,Nirusha P, Sabreen Taj B G,P, Thriveni T G. Microarray data analysis using R programming. *International Journal of Scientific Engineering and applied science*, 2015, Volume 1(3),264-282.ISSN(2395-3470),IF:3.466
8. **Gurumurthy.H** and Apoorva.D. Commonup Regulated and downregulated Genes for Multiple Cancers using Microarray Gene Expression Analysis. *International Journal of Scientific and Research Publications*, Vol 5, Issue 1, 2015.ISSN (2250-3158), 1-5. IF:2.07
9. **Gurumurthy.H**. Divya, V., Anitha P. Muttagi, Seema J Patel and Prashantha Nagaraja. Gene Expression Profile of Ovarian Cancer Dataset that helps to Predict Potential Biomarkers. *International Journal of Current Research in Life Sciences*, Vol. 4, No. 08, 321-327,2015.ISSN(2319-9490), IF:6.
10. S.Pooja, Anitha P. Muttagi, Seema J.Patel **H.Gurumurthy** and Prashanth Nagaraja,Whole Transcriptome cerebral cortex gene analysis in Alzheimer's diseases. *Computational Molecular Biology*, Vol 6(2),1,2016.ISSN(1927--5587),744-750.IF:1.537
- 11.Rakesh N R, Gurumurthy H, Mahadeva Prasad S, Sagar R Maleyur, Molecular Docking Study of Tetra hydroquinoline Derivatives on Rv0216_A Hypothetical Protein Found in Mycobacterium Tuberculosis, *Int J Com Bio & Bioinfo*, (2018); 1(1), 1 - 5.
12. Rakesh N R, **Gurumurthy H**, Ishwarya D. P., Preeti R. Bawali Anti-microbial Activity and FT-IR Analysis of Ethanol and Chloroform Extract from Musa paradisiaca, *Research & Reviews: A Journal of Biotechnology*. 2017; 7(3): 33–40p

13. Rakesh N. R., **Gurumurthy H.**, Chaitra K. J, Analysis of Gene Expression Data to Predict Genomic Interactions involved in Immune Responses Caused by Dengue Fever, *Research & Reviews: A Journal of Bioinformatics*. 2017; 4(1): 9–15p.

14. H.Gurumurthy, Sahana S Kulkarni, Meghana B Y , Shavya Nandini N, Rakesh N R , Biofuel Production and Biosorption in Industrial Waste water Using Microalgae, *Journal of Emerging Technologies and Innovative Research (JETIR)*,2019, Volume 6, Issue 6,525-534

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15. N R Rakesh, **H Gurumurthy**, H K Pradeep, S Pradeep, D M Gurumurthy and C L Sachin , in-Silico Pharmacological and Molecular Docking Studies of Natural Inhibitors form *Musa Spp*. On Vaca Gene a Vacuolating Cytotoxin Autotransporter, IOP Conference Series: Materials Science and Engineering, 2020, IOP Conf. Ser.: Mater. Sci. Eng. 925 01205 .

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16. H. Gurumurthy, and Ganesh G. Tilve, " InVitro Morphogenesis and Molecular Analysis in Coffee" in *International Journal for Innovative Research in Science and Technology*, Volume 8, Issue 2, July 2021 (ISSN- Online: 2349-6010)

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17. Rakesh N R, Gurumurthy H, Pradeep S, Kumar H M, Harshitha, Yashaswini, In-silico pharmacological studies and RMSD comparison of FDA drugs with bioactive compounds in *musa paradisica* for ligand promotion. *Asian Journal of Biomedical and Pharmaceutical Sciences* (2021) Volume 11, Issue 81

18. Dr.Gurumurthy H, Dr.Rakesh N R, Dr.Pradeep M J, Dr.Keerthi S and Sushma B S, Bio-waste processing and Development of Bio manure using black soldier flies, *IJNRD*, Volume 8, Issue 12 December 2023 ,ISSN: 2456-4184

19. Sushma B S, Keerthi S, **Gurumurthy H** and Pavan K J, Characterization and Treatment of Effluent from Gherkin Processing Industry using activated carbon, *J. Indian bot. Soc.* (2024)

Professional Membership

1. Life Member: Indian Society for Technical Education
2. Senior Member of Hong Kong Chemical, Biological & Environmental Engineering Society (HKCBEES).

Awards & Recognitions

1. Best Research paper award in 1st International Conference on Computational Engineering and Material Science ,18th July-2020
2. State best students project award by KSCST-2024
3. VTU appointed BOE member for Biotechnology -2012-2013
4. VTU appointed BOE member for Biotechnology -2015-2016
5. BOE member for Biotechnology Finishing School Course, SIT, Tumkur- 2013-2014
6. BOE member for Biotechnology Finishing School Course, SIT, Tumkur-2016-2017
7. VTU appointed BOE member for Biotechnology -2017-2018
8. VTU appointed BOE member for Biotechnology -2020-2021
9. BOE member for Biotechnology Course, SIT, Tumkur-2020-21
10. VTU appointed BOE Chairman for Biotechnology -2023-2024

Administrative Responsibilities

1. Designated as Head of the Department from Sept.2024 to till date
2. Designated as Director for School of Applied Sciences from Sept.2024 to till date

Workshops / FDPs / Seminars Attended

1. Actively participated in a two days National Seminar on conservation of “Wetland Ecosystem”, at Kuvempu University, June 2000
2. Attended AICTE Sponsored Faculty Development Programme on Biotechnology organized by School of Life Science NIT, Calicut, Kerala from 25th to 29th November 2010.

3. Participated in a Mission10X workshop conducted at University BDT College of Engineering at Davanagere from 5th to 9th January-2009.
4. Participated in National Conference in Biotechnology and Society from 19th to 20th April 2012 at Kuvempu University, Shankaragatta, Shimoga.
5. Attended National workshop on "DNA Barcoding" – Concept and Application at Biological Science Departments, University College, Hamapanakatta, Mangalore on 18th-19th Dec-2014 18th April 2015
6. Attended workshop on Plagiarism Issues and Essential Tools for Research Write –ups at Jain College of Engineering, Davangere, on 18th April 2015
7. Attended three days Faculty Development Program on "Feel Teacher Learning and Development intervention organized by GM Institute of Technology, Davangere and conducted by CLHRD, Mangalore from 27th to 29th, July 2015
8. Attended Bio-Innovation, Patenting and Entrepreneurship opportunities in Biotechnology for Sustainable Environment organized by Oxford college of science, Bengaluru from 29th and 30th March 2020
9. Attended FDP - Information and Communication Technology (ICT) and outcome-based education (OBE) Organised by RVCE, Bangalore, from 21-01-2020 to 25-01-2020
10. Attended FDP on Startup driven bio innovation and IOT for sustainable agritech-Phase –I organized by Oxford college of science, Bengaluru from 23-08-2021 to 28-08-2021
11. Attended FDP on Startup driven bio innovation and IOT for sustainable agritech-Phase –II organized by Oxford college of science, Bengaluru from 20-09-2021 to 25-09-2021
12. Attended FDP on PCR-Types and Applications from 28-06--2021 to 29-06-2021
13. Participated in the Webinar "NEP 2020: Planning & Implementation" Organised by Dr.K.N. Subramanya, Principal, RV College of Engineering, Bengaluru on 16th July, 2021.

Workshops / FDPs / Seminars Organized

1. Introduction to Bio-informatiques: Applying Computationnel Approach to Biomédical Science for Faculty of FBAS, GM University-2024
2. as a Resource person orgnised Leadership Training program for Faculty of GM University-2025
3. Conducted hands on training on Bioinformatics tools for PUC students– Mastering BLAST and RasMol Tool -2024
4. Coordinator for JAIVIK-2009 "Emerging trends in Biotechnology" held at Department of Biotechnology, GMIT, Davangere, on 16th May 2009
5. As a convener organised the technical talk on "Career Development" on 05-04-2012 at Department of Biotechnology G.M.Institute of Technology, Davangere.

6. As a convener organised the technical talk on "Effect of Climate Change on Agriculture" on 01-09-2012 at Department of Biotechnology G.M.Institute of Technology, Davangere.
7. As a convener organised the technical talk on "Recent Trends in Biotechnology and Career Opportunities" on 23-09-2013 at Department of Biotechnology G.M.Institute of Technology, Davangere.
8. As a convener organised the technical talk on "Carrier Guidance" on 23-09-2013 Department of Biotechnology G.M.Institute of Technology, Davangere.
9. Member organizing Committee for National Level Technical Fest -2013 held at Department of Biotechnology G.M.Institute of Technology, Davangere.
10. As a convener organised the one day workshop on "Genomics and Proteomics" on 15-05-2014 at Department of Biotechnology G.M.Institute of Technology, Davangere.
11. Member organizing Committee for National Level Technical Fest -2014 held Department of Biotechnology G.M.Institute of Technology, Davangere.
12. As a convener organised the technical talk on "Applications of Biotechnology in FMCG and Chemical Industries" on 06-09-2014 at Department of Biotechnology, G.M.Institute of Technology, Davangere.
13. As a convener organised the technical talk on "Carrier opportunities in Pharmaceutical and Biopharmaceutical Industries" on 13-05-2014 at Department of Biotechnology, G M Institute of Technology, Davangere.
14. As a chief co-coordinator organized the technical Talk on "Application of Genome Informatics on 30-10-2015 at Department of Biotechnology, GM Institute of Technology, Davangere.
15. As a chief co-ordinator organized the technical Talk on "Overview on Biosimilar Production" on 15-10-2015 at Department of Biotechnology, G M Institute of technology, Davangere.
16. Member organizing committee for National Level Technical Fest -2015 held at Department of Biotechnology, GM Institute of technology,

Davanagere.

17. Coordinator for Blood Donation Camp-2015 held at GM Institute of Technology, Davangere on 06th November, 2015.
18. As a convener organized a technical talk on “Application of Forensic Science in Crime Investigation on 13-05-2016, at Department of Biotechnology. GM Institute of technology, Davangere
19. As a chief co-coordinator organized the one-day workshop on “Bioprocess Equipment Design and CAED” on 21-04-2016 at Department of Biotechnology. GM Institute of Technology, Davangere.
20. As a convener organized a technical talk on “Entrepreneurship Opportunities in Biotechnology on 08-09-2016, at Department of Biotechnology. GM Institute of Technology, Davangere.
21. Chief cultural Coordinator for the conference held on 23rd and 24th September 2016 at GM Institute of Technology, Davangere.
22. Coordinator for Blood Donation Camp -2016 organized by GM Institute of Technology, Davangere in association with Lions Club and SS Institute of Medical science and Research Center, Davangere held on 11th November 2016
23. Coordinator for MALLIKA 17.O Sports and Cultural fest of G.M.Institute of Technology, Davangere.

Projects Guided

-UG Projects

1. Vetiver Filter for the Sustainable Water purification in commercial Use
2. Production of Microbial oil by oleaginous algae using Agro-Industrial waste water (Effluent)"
3. Comparative Genomic, Proteomic and Phylogenetic analysis of Different Tuberculosis strains
4. Production of Biofuel and Biosorption of Heavy Metals by Microalgae Using Industrial Waste Water
5. Vermicomposting and Production of Bio-Ehanol Using Pressmud and Molasses from Sugar Industry

6. Extraction of Anti-Odour Compound from *Arabidopsis Thalliana* and Treating Foul Smell in Recycled Sewage Water
7. Devising of Organic Eco-friendly Compost Fertilizer for value added Crops
8. Designing of sustainable water purifier using Roots of *Chrysopogon Zizanioides*
9. Development of Biodegradable sacs for fruit Ripening using Rice Starch
10. Development of Biowrappers using banana pseudo stem, sugarcane bagasse and arecanut husk
11. Bio-waste processing with black soldier flies(BSF) and Assessment of global warming
12. Treatment of Waste water and generation of Electricity from algae

Funded Projects / Grants Received

1. Designing of Sustainable water filter using vetiver for commercial use NAIN, Rs.2,73.000

Any Other Contributions

1. AICTE Reviewer for the Technical Book Writing in Regional Language Kannada-2022
2. Worked as Observer for the NEET Examination for the year 2021 and 2022
3. Worked as Observer for the UGE-NET Examination for the year 2021
4. Worked as Observer for the JEE examination for the year 2022
5. Worked as Observer for the NEET Examination for the year 2024
6. Worked as Observer for the NEET Examination for the year 2025