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GM UNIVERSITY

P. B. Road, Davanagere – 577 006 KARNATAKA | INDIA

GMU - Faculty & Staff Profile



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Websites

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Google Scholar:

<https://scholar.google.com/citations?user=kNPYy9sAAAAJ&hl=en>

Research Gate:

<https://www.researchgate.net/profile/Veerabhadraswamy-B-N>

SCOPUS:

<https://www.scopus.com/authid/detail.uri?authorId=57222006953>

PUBLONS ID:

<https://www.webofscience.com/wos/author/record/ABG-3848-2022>

Dr. Veerabhadraswamy B. N.

Assistant Professor, Department of Chemistry &
Deputy Registrar, Assessment & Evaluation

Faculty

Faculty of Basic and Applied Sciences

School / Program

School of Chemical and Biological Sciences

Faculty Introduction

Dr. Veerabhadraswamy B. N. is an accomplished academic and administrator currently serving as Assistant Professor of Chemistry and Deputy Registrar (Assessment and Evaluation) at GM University. He has contributed significantly to academic governance. His research expertise lies in the synthesis and characterization of liquid crystalline materials, nanomaterials and organic functional compounds for sensor and optoelectronic applications. He has published widely in reputed international journals and collaborated with premier research institutes, including the Centre for Nano and Soft Matter Sciences, Bengaluru. His current work focuses on nanomaterial-based composites and green synthesis for advanced material applications, alongside his commitment to enhancing quality education and research culture.

Qualifications

Ph.D. (Liquid Crystalline Synthesis and Characterization)

Centre for Nano and Soft Matter Sciences, Bangalore, 2019

M.Sc. (Chemistry)

Kuvempu University – Shivamogga, Karnataka, 2011

B.Sc. (Chemistry, Industrial Chemistry, Mathematics)

Kuvempu University – Shivamogga, Karnataka, 2008

Experience

Teaching

- 2020-2022 at Rajiv Gandhi Institute of Technology, Bangalore
- 2022-2024 at GM Institute of Technology, Davanagere
- 2024- Till at GM University, Davanagere



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Research

- 8 Years on Synthesis and Characterization of Liquid Crystals and Nano Materials for Gas sensing applications. (2012-2018 (PhD), 2018-2020 (Post Doc))

Training Program Attended

- Nurturing Future Leadership Programme (NFLP), IIM, Sambalpur, Odisha. (18-22, June 2024)
- Leadership Training at School of Design Thinking, Intellect Design Arena Ltd., Chennai, Tamil Nadu. (12-13, March 2025)

Research Interest

- Organic Synthesis of Liquid Crystals and Characterization
- Green Synthesis & Chemical of Nano materials
- Material for Gas sensing applications
- Material Chemistry

Awards & Achievements

- Faculty Excellence Award – 2025 by GM University

Publication / Patents

- **Ph.D. Dissertation:**
“Synthesis and characterization of Liquid Crystalline Compounds”
- **National Conference Papers:**
 1. Attended State level seminar on “Analytical Techniques in the Present Scenario” held at Sahyadri Science College, Shimoga, 2010.
 2. Oral presentation by M N Kumaraswamy of our MSc Project on National Conference “Social Relevance of Chemical Sciences” in the year 2011, organized by Department of Chemistry, Kuvempu University, Gnana sahyadri, Shankaraghatta. Synthesis of N-[1- naphtho[2,1-b] furan-2-yl (phenyl) methylidene] aniline and N'-[1- phenylethylidene]naphtho[2,1-b]furan-2-carbohydrazide derivatives and their antimicrobial activity. M. N. Kumaraswamy, M. Deepika, G. R. Kavya, M. B. Kavya, H. R. Leela, Y. M. Nagapooja and B. N. Veerabhadraswamy, 26th and 27th of March 2011.
 3. Poster presented on “20th National Conference on Liquid crystals” (NCLC-2013) at Manipal (MIT) “Optically active, Three-Ring Schiff bases and Salicylaldehydes: Synthesis and Mesomorphism of Ten Pairs of Enantiomers”, B. N. Veerabhadraswamy and C. V. Yelamaggad, December 16-18, 2013.
 4. Oral presentation on “23rd National Conference on Liquid crystals” (NCLC-2016) at Dhanbad (IIT-Dhanbad) “s-Triazine Based Functional Discotic Liquid crystals: Synthesis, Mesomorphism and Photoluminescence” B. N. Veerabhadraswamy and C. V. Yelamaggad, December 07-09, 2016.
- **International Conference Papers:**
 1. B N Veerabhadraswamy, H K Pradeep, K Swaroop, K M Manoj, M V Dhanush Nadigar, M P Akash Patel and N P Bhagya, Green synthesis and characterization of Zirconium Oxide with antimicrobial activities, IOP Conference Series: Materials Science and Engineering, Volume 1300, Year 2024, Pages 012036.
 2. Swaroop K., Ashwini S. G., Murari M. S., Naveen C. S., Vinayaka A. K., Santhosh B. M., Veerabhadraswamy B. N. and Yashodhara I., pH Responsive Properties of Methyl Red/PVA Polymers for Smart Food Packaging



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Applications, IOP Conference Series: Materials Science and Engineering, Volume 1300, Year 2024, Pages 012016.

3. G. Exner, Y. G. Marinov, B. N. Veerabhadraswamy, C. V. Yelamaggad, P. Rafailov, H. K. Koduru, V. Georgieva, Composite With Improved Dispersion Of Single Walled Carbon Nanotubes In Liquid Crystalline Molecules, 11th International Conference of the Balkan Physical Union, 2023.

- **International Journal Papers:**

1. **Veerabhadraswamy B. N.**, Swaroop K., Bhagya N. P., Hareesha N. and Kiran M. S. Eucalyptus Tereticornis Mediated Silver-doped Zinc oxide Nanostructures: Multifunctional agent for Antioxidant, Anticancer and Anticorrosion Applications, *Next Materials*, 2025 (Under review).
2. Ashwath Narayana, Mahendra Prashanth, K. V., **Veerabhadraswamy, B. N.**, Bharathkumar Mareddi, Santosh Y. Khatavi and C. V. Yelamaggad, High-Performance Ammonia Sensing with Citrus Hystrix-Mediated ZnO Nanoparticles in TFT-Based Devices, *ChemNanoMat*, 2025, e202400491 (1 of 11).
3. Bhagya, N. P., Prashanth, G. K., **Veerabhadraswamy, B. N.**, Srilatha Rao, Yashodha, S. R., Yogananda, H. S., Lalithamba, H. S., Optimizing adsorption efficiency: synthesis and characterization of zinc-doped strontium titanate for highly effective removal of malachite green dye, *Transition Metal Chemistry*, 2024, 50(1), 75-87.
4. K. V. Yatish N. P. Bhagya, G. K. Prashanth, Srilatha Rao, P. A. Prashanth, A. S. Sowmyashree, **B. N. Veerabhadraswamy**, M. Mahadevaswamy, NanoGuard: Antibacterial marvels of strontium titanate – Synthesis, characterization and multifunctional insights, *Inorganic Chemistry Communications*, 2024, 163, 112303
5. Ginka Exner, Yordan Marinov, **B. N. Veerabhadraswamy**, C. V. Yelamaggad, Peter Rafailov, Veselina Georgieva, Effect of nanofiller concentration on its dispersion in a system of liquid crystalline SB(3R)-11 and single walled carbon nanotubes, *Journal of Physics: Conference Series*, 2023, 2436, 012022.
6. **Veerabhadraswamy, B. N.**, Santosh Y. Khatav, Anil S. Rathod, Madhu Babu Kanakala, D. S. Shankar Rao, C. V. Yelamaggad, Tris(boranyl) Columnar Liquid Crystalline Fluorophores: pseudo-Triphenylene Boron(III) Complexes with Peripheral N-B-O Linkages, *Chemistry - A European Journal*, 2023, 29, e202202987 (1 of 9).
7. S. L. Hossain, M. Mathews, **B. N. Veerabhadraswamy**, B Kirankumar, C. V. Yelamaggad, C. Rajendra Singh, Antiproliferative, apoptosis-inducing activity and molecular docking studies of sydnones compounds, *J Can Res Ther.*, 2021, 18(3), 681-690.
8. S. L. Hossain, C. V. Yelamaggad, M. Mathews, **B. N. Veerabhadraswamy**, C. Rajendra Singh, B. Kirankumar, in vitro DNA Binding, Anticancer and Molecular Docking Studies of New Sydnone Compounds, *Asian J. Chem.* 2021, 33, 2082-2092.
9. S. Yuvaraja, **B. N. Veerabhadraswamy**, S. A. Bhat, T. Vijjapu, Sandeep G. Surya, Mani, C. V. Yelamaggad, K. N. Salama. Tris(Keto-Hydrazone): A fully integrated highly stable and exceptionally sensitive H₂S capacitive sensor. *Adv. Electron. Mater.*, 2021, 7, 2000853.
10. R. A. Nayak, **B. N. Veerabhadraswamy**, D. S. S. Rao, A. S. Achalkumar, C. V. Yelamaggad. Room-Temperature, Deep-Red/NIR-Emissive, C₃-Symmetric (n,π-conjugated) Columnar Liquid Crystals: C₃h-Tris(keto-hydrazone)s. *ACS Omega*, 2021, 6, 3291-3306.
11. S. Yuvaraja, **B. N. Veerabhadraswamy**, S. A. Bhat, Sandeep G. Surya, C. V. Yelamaggad, K. N. Salama. A highly selective electron affinity facilitated H₂S sensor: the marriage of tris(keto-hydrazone) and an organic field-effect transistor. *Materials Horizons*, 2021, 8, 525-537.



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12. V. N. Patil, **B. N. Veerabhadraswamy**, S. Chakraborty, S. M. Khened, R. D. Mathad and C. V. Yelamaggad. Investigation of Dielectric Behavior of Two Different Schiff base Ferroelectric Liquid Crystals. *Ferroelectrics*, **2021**, *571*, 85-95.
13. V. N. Patil, R. Sahoo, **B. N. Veerabhadraswamy**, S. Chakraborty, R. Dhar, R. D. Mathad and C. V. Yelamaggad. Polarization investigations of Schiff base three-ring ferroelectric liquid crystals. *Liq. Cryst.*, **2021**, *48*, 1194-1205.
14. Vijayshree N. Patil, **B. N. Veerabhadraswamy**, S. Chakraborty, S. M. Khened, R. D. Mathad, and C. V. Yelamaggad, Dielectric study of three homologous Schiff base ferroelectric liquid crystals with the variation of temperature and frequency. *Journal of Advanced Dielectrics*, **2020**, *10*, 2050019.
15. S. A. Inchara, **B. N. Veerabhadraswamy**, B. Paul, G. Hegde, C. V. Yelamaggad, and G. Shanker. Supramolecular Self-Assembly Properties of Metallo-Ionic Phthalocyanines Constituting Regioisomers. *ChemistrySelect*, **2020**, *05*, 10106–10113.
16. **B. N. Veerabhadraswamy**, S. A. Bhat, U. S. Hiremath and C. V. Yelamaggad, Light-Emitting Chiral Nematic Dimers with Anomalous Odd-Even Effect, *ChemPhysChem*, **2019**, *20*, 2836-2851.
17. N. Sharadhi, S. Vimala, K. Nurjahan, **B. N. Veerabhadraswamy**, C. V. Yelamaggad and Geetha G. Nair, Tuning of photonic band gap via combined effect of electric and optical fields in a blue phase liquid crystal composite, *Liq. Cryst.*, **2019**, *47*, 211-218.
18. Marlin Baral, S. K. Prasad, **B. N. Veerabhadraswamy**, and C. V. Yelamaggad, Enhanced photoluminescence in a chiral nematic liquid crystal through polymer stabilization and an erasable 3-state memory device. *J. Mol. Liq.*, **2019**, *292*, 111338.
19. **B. N. Veerabhadraswamy**, D. S. Shankar Rao and C. V. Yelamaggad, Ferroelectric Liquid Crystals: Synthesis and Thermal Behavior of Optically Active, Three-Ring Schiff bases and Salicylaldehydes. *Chem. Asian J*, **2018**, *13*, 1012 – 1023.
20. **B. N. Veerabhadraswamy**, Hashambi K. Dambal, D. S. Shankar Rao and C. V. Yelamaggad., s-Triazine-Based Functional Discotics: Synthesis, Mesomorphism and Photoluminescence. *ChemPhysChem*, **2016**, *17*, 2225-2237.
- a. S. Achalkumar, **B. N. Veerabhadraswamy**, Uma S. Hiremath, D. S. Shankar Rao, S. K. Prasad and C. V. Yelamaggad., Photoluminescent Discotics Derived from Tris(N-salicylideneaniline)-Stilbene Conjugates: Structure-Property Correlations. *Dyes and Pigments*, **2016**, *132*, 291 -305.
21. S. Vimala, Geetha G Nair, S. Krishna Prasad, **B. N. Veerabhadraswamy** and Uma S Hiremath, Diminished Splay Stiffening in Weak Gels of Calamitic – Bent-Core Nematic Composites. *J. Phy. Chem. B*, **2016**, *120*, 2596–2603.
22. **B. N. Veerabhadraswamy**, D. S. Shankar Rao, and C. V. Yelamaggad, Stable Ferroelectric Liquid Crystals Derived from Salicylaldehyde-Core. *J. Phy. Chem. B*, **2015**, 4539–45.
23. **B. N. Veerabhadraswamy**, D. S. Shankar Rao, S. Krishna Prasad and C. V. Yelamaggad, Optically active, three-ring calamitic liquid crystals: The occurrence of frustrated, helical and polar fluid mesophases. *New J. Chem.*, **2015**, *39*, 2011-2027.

Professional Membership

- Indian Liquid Crystal Society (Life Member)
- Karnataka State Scientific Council (R.) (Member)
- Electrochemical Society of India (Life Member)



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Awards & Recognitions

- DST – JRF at Centre for Nano and Soft Matter Science (CeNS), Bangalore (2012-2014)
- DST – SRF at Centre for Nano and Soft Matter Science, Bangalore (2014-2017)
- Provisional Associate at Centre for Nano and Soft Matter Science, Bangalore (2018-2019)
- Research Personnel under SERB-CRG Project at CeNS (2019-2020)
- Collaboration with KAUST, Saudi Arabia for Gas Sensor Applications (2021)

Administrative Responsibilities

- 2022-2023, Research Coordinator, Department of Chemistry, GMIT
- 2023-2024, Assistant Registrar, Assessment & Evaluation, GM University
- 2024-Till date, Deputy Registrar, Assessment & Evaluation, GM University

Workshops / FDPs / Seminars Attended

- Represented 'Centre for Nano and Soft Matter Sciences' in "India International Science Festival (IISF-2017)" to demonstrate the prototypes.
- Participated in the International Conference on Nanoscience and Technology (ICONSAT- 2018) held on 21-23 March 2018, Bengaluru.
- Volunteered in the International Year of the Periodic Table of Chemical Elements (IYPT- 2019) held on May 29th 2019, Bengaluru.
- Participated in one-day National Webinar on "Advances in Material Science" organized by the Science Departments in association with IQAC of the college, JSS College of Arts, Commerce and Science Nanjanagudu – 571301, held on 13th Feb 2023.
- Attended the online Faculty Development Programme on "Advances in Materials Chemistry" held between 17th-21st July 2023, Organized by Department of Chemistry, School of Engineering, Presidency University, Bengaluru.
- Presented a research paper titled "Green Synthesis and Characterization of Zirconium Oxide with Antimicrobial Activities" in ICPN-2023 organized by Department of Physics, Mangalore University during September 21-23, 2023.

Workshops / FDPs / Seminars Organized

- Organized Yuva Utsav 2023 program of NYK Davangere on March 20, 2023 at GM Institute of technology.

Projects Guided

1. Mentoring the NAIN Project on the titled "Smart Device for Fruits Spoilage Detection", sanctioned of 267000/-.
2. Seed money sanctioned on a project "Solar paint" of 25000/- by GM University.

Funded Projects / Grants Received

- Mentored the NAIN Project on the titled "Smart Device for Fruits Spoilage Detection", sanctioned of 267000/- by Government of Karnataka.
- Seed money sanctioned on a project "Solar paint" of 25000/- by GM University.

Any Other Contributions

- Guiding 2 students for PhD in Chemistry (1-VTU and 1-GMU).
- Guided 8 students for SIH and participated in the SIH held at KIET, Ghaziabad. September 15–16, 2025.
- Mentoring 6 students (GMIT) for the development of Fruit spoilage detector under NAIN project. (Sanctioned 2.67 Lakhs from NAIN).