



# TAGORE ENGINEERING COLLEGE

(A Member of Tagore Group of Institutions Chennai)

Approved by AICTE, New Delhi | Affiliated to Anna University, Chennai

ACCREDITED BY IQAC-NAAC WITH 'A' GRADE

## FACULTYPROFILE

| PERSONALDETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                      |                                                                                      |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| Name&Qualification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Dr. B.Chandralekha., M.Sc.,<br>B.Ed., M.Phil., Ph.D. |  |      |
| Designation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Assistant Professor                                  |                                                                                      |      |
| Department                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Physics                                              |                                                                                      |      |
| Total Teaching Experience                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2                                                    |                                                                                      |      |
| Total Research Experience                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7                                                    |                                                                                      |      |
| Total Industry Experience                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -                                                    |                                                                                      |      |
| Area of Specialization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Computational studies on organics<br>compounds       |                                                                                      |      |
| AICTE Faculty ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                      |                                                                                      |      |
| Email ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | chandralekhaphysics@gmail.com                        |                                                                                      |      |
| EDUCATIONALDETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                      |                                                                                      |      |
| Degree                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Branch/Specialization                                | University                                                                           | Year |
| UG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Physics                                              | Madurai Kamaraj<br>University                                                        | 2006 |
| PG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Physics                                              | Madurai Kamaraj<br>University                                                        | 2008 |
| M.Phil                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Physics                                              | University of Madras                                                                 | 2015 |
| Ph.D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Physics                                              | University of Madras                                                                 | 2022 |
| RESEARCH/PUBLICATIONDETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                      |                                                                                      |      |
| <ul style="list-style-type: none"><li>R.Jothiraj and B.Chandralekha “An Efficient Connected Dominating Set Based Routing Scheme in Ad Hoc Wireless Networks”, <b>Indian Journal of Natural Sciences</b>,Volume 15, Issue 85, 2024, pp 7636- 7644.</li><li>R.Jothiraj and B.Chandralekha “On graphs with Equal Strong Triple Connected Dominator Chromatic Number and Strong Triple Connected Domination Numbers”, <b>Indian Journal of Natural Sciences</b>,Volume 14, Issue 82, 2024, pp 67371- 67376.</li><li>R.Jothiraj and B.Chandralekha “Paired Neighbor Connected Dominator Coloring Set in Graphs”, <b>Indian Journal of Natural Sciences</b>,Volume 14, Issue 79, 2023, pp 58202-</li></ul> |                                                      |                                                                                      |      |

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- R.Jothiraj and B.Chandralekha “ Triple Connected Dominator Coloring Sets using TUS and Backtracking Algorithm for MANET ”, **European Chemical Bulletin**, Volume 12, Issue7, 2023, pp 2157-2167.  
R.Jothiraj and B.Chandralekha “Mathematical Based Performance Comparison of TUS and Triple Connected Dominator Coloring Sets for MANET”, **European Chemical Bulletin**, Volume 12, Issue 4, 2023, pp 3191-3197.
- B. Chandralekha, HemamaliniRajagopal, S.Muthu, S.Sevvanthi, Spectroscopic (FT-IR, FT-RAMAN, NMR, UV-Vis) investigations, computational analysis and molecular docking study of 5-bromo-2-hydroxy pyrimidine, **Journal of Molecular Structure**, 1218, (2020), 128494.
- B. Chandralekha , Hemamalini Rajagopal , S. Muthu , Fathima Rizwana B “Quantum mechanical, spectroscopic and molecular docking studies of N-[4-cyano-3-(trifluoromethyl) phenyl]-3-[(4- fluorophenyl)sulfonyl]-2-hydroxy-2-methylpropanamide”, **Chemical Data Collections**, 2019, 2405-8300.
- Maha S. Almutairi, S. Muthu, Johanan C. Prasana, B. Chandralekha, Alwah R. Al-Ghamdi, Mohamed I. Attia “Comprehensive spectroscopic (FT-IR, FT-Raman, <sup>1</sup>H and <sup>13</sup>C NMR) identification and computational studies on 1-acetyl-1*H*-indole-2,3-dione”, Placeholder, published by **De Gruyter, Open Chem.**, 2017; 15: 225–237.

## CONFERENCEPROCEEDINGS

1. B. Chandralekha, “Spectroscopic (FT-IR, FT-Raman, NMR, UV) Investigation, Computational Analysis and Molecular Docking Study Of 5-Bromo-2-Hydroxy -3-Nitropyridine”, 7<sup>th</sup> International conference on Recent Advances in Science, Engineering and Management (ICRASEM - 2022), pp. 175, Tagore Engineering College, 25th January 2023.  
**ISBN : 978-81-943033-7-4.**
2. B. Chandralekha , Hemamalini Rajagopal , S. Muthu , Fathima Rizwana B, Quantum mechanical, spectroscopic and molecular docking studies of N-[4-cyano-3-(trifluoromethyl) phenyl]-3-[(4-fluorophenyl)sulfonyl]-2-hydroxy-2-methylpropanamide, International Conference on Molecular Structure of Nano and Bio Materials.Vol.1,pp.64,Arignar Anna Government Arts Colleges, Cheyyar, during 27-28 September 2018.  
**ISBN : 978-93-86590-72-5**
3. B. Chandralekha , Hemamalini Rajagopal , S. Muthu , Fathima Rizwana B, Quantum mechanical, spectroscopic and molecular docking studies of N-[4-cyano-3-(trifluoromethyl) phenyl]-3-[(4-fluorophenyl)sulfonyl]-2-hydroxy-2-methylpropanamide, International Conference on Molecular Structure of Nano and Bio Materials.Vol.1,pp.64,Arignar Anna Government Arts Colleges, Cheyyar, during 27-28 September 2018.  
**ISBN : 978-93-86590-72-5**
4. B. Chandralekha , Hemamalini Rajagopal , S. Muthu , Structural, Spectroscopic studies (FT-IR, FT-Raman, UV-VIS), Computational analysis (DFT method) on Bicalutamide (anti-cancer drug), International Conference on New Materials & Arid Land (ICNMAL – 2018), St. Joseph’s College of Arts & Science, Cuddalore, 15th – 16th March 2018.

5. B. Chandralekha, Hemamalini Rajagopal, S. Muthu, S. Sevvanthi, Spectroscopic Investigation, Computational analysis and Molecular Docking study of 3,5 Dibromo-2-Hydroxy Pyridine, International Conference on Physics of Advanced Materials and Molecules (ICPAMM – 2020), Dr. Ambedkar Government Arts College, Vyasarpadi, Chennai, 30th – 31st January 2020.
6. B. Chandralekha, Hemamalini Rajagopal, S. Muthu, S. Sevvanthi, Spectroscopic (FT-IR, FT-Raman, NMR, UV-VISIBLE) Investigation, Quantum mechanical and Molecular Docking studies on 5-Bromo-2-Hydroxy 4-Methyl Pyridine by Density Functional Method, National Conference on Functional Materials and its Applicational ASPECTS (NCFMAA – 2020), Saveetha School of Engineering, Chennai, 5th – 6th March 2020.

#### **Books/ChaptersPublished**

-

#### **FundReceived**

|                                                                                                                                                                                                                           |                                 |                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------|
| -                                                                                                                                                                                                                         |                                 |                               |
| <b>PatentApplied/ Published/Granted</b>                                                                                                                                                                                   |                                 |                               |
| <ul style="list-style-type: none"> <li>A Multivariate Approach for the Biometric Comparison of Analytical Methods in Clinical Chemistry” The Patent Journal pp.11 (56563), Issue No. 35/2023 Dated 01.09.2023.</li> </ul> |                                 |                               |
| CITATIONS                                                                                                                                                                                                                 | -                               |                               |
| H-INDEX                                                                                                                                                                                                                   | -                               |                               |
| <b>RESEARCHGUIDANCEDETAILS</b>                                                                                                                                                                                            |                                 |                               |
| <b>SL.No</b>                                                                                                                                                                                                              | <b>University</b>               | <b>SupervisorID/Reference</b> |
| 1                                                                                                                                                                                                                         | AnnaUniversity, Chennai         | -                             |
| 2                                                                                                                                                                                                                         | NumberofUGScholarsGuided        | -                             |
| 3                                                                                                                                                                                                                         | NumberofPGScholarsGuided        | -                             |
| 4                                                                                                                                                                                                                         | NumberofPh.D.Scholars Guided    | -                             |
| 5                                                                                                                                                                                                                         | NumberofPh.D. Scholars Pursuing | -                             |
| <b>PROFESSIONALSOCIETYMEMBERSHIPDETAILS</b>                                                                                                                                                                               |                                 |                               |
| <b>SL.No</b>                                                                                                                                                                                                              | <b>ProfessionalSocietyName</b>  | <b>MemberID</b>               |
| -                                                                                                                                                                                                                         | -                               | -                             |