Name : **Dr. S. Christopher Jeyaseelan**

Designation : **Assistant Professor, Department of Physics, The American College, Madurai.**

Email : **christopherjeyaseelan@americancollege.edu.in**

Date of Joining : **28.06.2023**

Educational Qualification:

Degree	Subject	College / University & Place	Year Completed
B.Sc	Physics	St. Johns College, Tirunelveli	2014
M.Sc	Physics	Bharathidasan University	2016
SET	Physics	Mother Teresa Women's University	2016
Ph.D	Physics	Madurai Kamaraj University	2021

Specialisation in Research:

- Non-linear photonics
- Molecular Spectroscopy
- Synthesis and Characterisation of Nano materials
- DFT Calculations

Other Work Experience:

Designation	Institution / Company	Year - From (month/year) To (month/year)
Assistant Professor	NMSSVN College	09-11-2020 to 17-06-2022
Assistant Professor	Mannar Thirumalai Naciker College	03-07-2022 to 27.06.2023
Assistant Professor	The American College	28-06-2023 to Till date

Publications:

Articles Published in International Journals:

1. Spectroscopic, quantum chemical, molecular docking and in vitro anticancer activity studies on 5-Methoxyindole-3-carboxaldehyde, S. Christopher Jeyaseelan, R. Premkumar, K. Kaviyarasu, A. Milton Franklin Benial, J Mol Struct. 1197 (2019) 134-146.
2. Vibrational, Spectroscopic, Chemical reactivity, Molecular docking and in vitro anticancer activity studies against A549 lung cancer cell lines of 5-Bromo-indole-3-carboxaldehyde, S. Christopher Jeyaseelan, A. Milton Franklin Benial, K. Kaviyarasu, J Mol Recognit. (2020) 1-20.
3. Spectroscopic characterization, DFT studies, molecular docking and cytotoxic evaluation of 4-nitro-indole-3-carboxaldehyde: A potent lung cancer agent, S. Christopher Jeyaseelan, A. Milton Franklin Benial, J Mol Recognit. (2020) e2872.
4. Conformational, vibrational spectroscopic and quantum chemical studies on 5-methoxyindole-3-carboxaldehyde: A DFT approach, S. Christopher Jeyaseelan, Shamima Hussain, R. Premkumar, T. N. Rekha, and A. Milton Franklin Benial, AIP Conf. Proc. 1942 (2018) 040018.
5. Vibrational spectroscopic, molecular docking and in-vitro cytotoxicity studies against lung cancer cell line on 5-cyano-indole-3-carboxaldehyde, S. Christopher Jeyaseelan, R Premkumar, K Kaviyarasu, A. Milton Franklin Benial, Asian Journal of Physics. 28 (2019) 71-93.
6. Vibrational spectroscopic, quantum chemical and molecular docking studies on diethyl 2, 4-dimethylpyrrole-3, 5-dicarboxylate, R. Premkumar, Shamima Hussain, S. Christopher Jeyaseelan, T. Mathavan, A. Milton Franklin Benial, M. A. Palafox, V. K. Rastogi, Asian Journal of physics, 27 (5) 287-310 (2018).
7. Quantum chemical and molecular docking studies on biomolecule 5-Aminouracil, R. Premkumar, S. Christopher Jeyaseelan, W. Kiefer, M. A. Palafox, A. Milton Franklin Benial, V. K. Rastogi, Asian Journal of Physics, 28 (3) 159-175 (2019).
8. Quantum Chemical, Spectroscopic investigations, Molecular docking and Cytotoxic evaluation of 1-Methyl-indole-3-carboxaldehyde, S. Christopher Jeyaseelan, A. Milton Franklin Benial, Chemical Data Collections 33 (2021) 100698.
9. Synthesis, spectroscopic (FT-IR, FT-Raman, NMR & UV-Vis), reactive (ELF, LOL, Fukui), drug likeness and molecular docking insights on novel 4-[3-(3- methoxy-phenyl)-3-oxo-propenyl]-benzonitrile by experimental and computational methods, Shivaraj B. Radder, Raveendra Melavanki, Sudhir M. Hiremath, Raviraj. Kusanur, Seema S. Khemalapure, S. Christopher Jeyaseelan, Heliyon 7 (2021) e08429.
10. Electrical and Electrochemical Characteristics of Withania somnifera Leaf Extract Incorporation Sodium Alginate Polymer Film for Energy Storage ApplicationsK. Chinnaiah, T. Theivashanthi, Karthik Kannan, M. S. Revathy, Vivek Maik, Hemalatha Parangusan, S. Christopher Jeyaseelan, K. Gurushankar, Journal of Inorganic and Organometallic Polymers and Materials, 32 (2022) 583-595.
11. Anionic acid functionalized mesoporous γ- Al2O3 nanorods: Preparation, physicochemical and biological characterizations, P.Arunarajeswari,

T.Mathavan, S. Christopher Jeyaseelan, A.Divya, A. Milton FranklinBenial, Chemical Data Collections, 37 (2022) 100819.

12. Structural, vibrational, fluorescence spectral features, Hirshfeld surface analysis, docking and drug likeness studies on 4-(2-bromo-4-methylphenoxymethyl)-6-methyl-coumarin derivative: Experimental and theoretical studies, Sudhir M.Hiremath, Mahantesha M.Basanagouda, Seema S.Khemalapure, AshwiniRayar, Anurag M.Rakkasagi, Varsha V.Koppal, R.T.Mahesh, S. ChristopherJeyaseelan, J. Photochem. Photobiol. A, 431 (2022) 114055.
13. P. Kavitha, S. Christopher Jeyaseelan, T.C. Sabari Girisun, Two photon absorption induced optical limiting action of L-Aspartic acid monohydrate, Optical Materials, 134 (2022) 113134.
14. Shivaprasadagouda Patil, Mahanthesh M. Basanagouda , Sudhir M. Hiremath, S. Christopher Jeyaseelan, Raghavendra K. Sali, Ashok H. Sidarai, Electrochemical Behaviour of Green Synthesized Silver Nanoparticles using Camellia sinensis Leaves: Impacts on Photophysical Behaviour of Benzofuran Derivative, Asian Journal of Chemistry, 34(12):3197-3205.
15. Seema S Khemalapure, Sudhir M Hiremath, Mahantesha M Basanagouda, Chidanandayya S Hiremath, Varsha V Koppal, S Christopher Jeyaseelan, Design, Vibrational and Fluorescence Spectroscopic Properties, and Molecular Docking Studies of 3-(5-Bromobenzofuran-3-ylmethyl)-5-(4-methoxyphenyl)-4H-[1,2,4]-triazole by Experimental and Density Functional Theory Methods, Chemistry Select, 8 (2023) e202300428.
16. Seema S Khemalapure, Sudhir M Hiremath, Mahantesha M Basanagouda, Shivaraj B Radder, Varsha V Koppal, S Christopher Jeyaseelan, Veerabhadrayya S Negalurmath, Spectral (vibrational, fluorescence), electronic features and molecular docking studies of 3-(5-chloro-benzofuran-3-ylmethyl)-5-(4-methoxy-phenyl)-4H-[1,2,4] triazole using experimental and DFT methods, Chemical Physics Impact, 6 (2023) 100218.
17. Shivaprasadagouda Patil, Mahanthesh Basanagouda, Sudhir M. Hiremath, Aishwarya Nadgir, Malatesh S Pujar, Raghavendra K. Sali, S. Christopher Jeyaseelan, Ashok H. Sidarai, Investigation of Biogenic Silver nanoparticles Concentrations Impact on Novel Benzofuran Derivative and Their Electrochemical Study, BioNanoSci. (2023).
18. K Gurushankar, S. Christopher Jeyaseelan, M Grishina, I Siswanto, R. Tiwari, NNT Puspaningsih, Density Functional Theory, Molecular Dynamics and AlteQ Studies Approaches of Baimantuoluoamide A and Baimantuoluoamide B to Identify Potential Inhibitors of Mpro Proteins: a Novel Target for the Treatment of SARS COVID-19, JETP Letters (2023).
19. Karuppiah Chinniah, Karthik Kannan, Vivek Maik, Vladimir Potemkin, Maria Grishina, S. Christopher Jeyaseelan, Arumugam Muthuvel, David Gnanasangeetha, Krishnamoorthy Gurushankar, Spectroscopic analysis of plant trace element incorporated silver nanoparticles synthesis from Datura metel L, DOI: 10.22146/ijbiotech.76257
20. A Kavi Bharathi, S Christopher Jeyaseelan, Shamima Hussain, A Milton Franklin Benial, Spectroscopic investigations, Quantum chemical, Drug likeness and

Molecular docking studies of Methyl 1-Methyl-4-nitro-pyrrole-2-carboxylate: A novel Ovarian cancer drug, Spectrochim. Acta A, 302 (2023) 123074.

21. A Kavi Bharathi, S Christopher Jeyaseelan, Shamima Hussain, A Milton Franklin Benial, Spectroscopic Characterization, Quantum Chemical Studies, Molecular Docking and Drug Likeness of 5-Acetyl-2, 4 Dimethyl-1H-Pyrrole-3-Carboxylic Acid as a Potent Anti-melanoma Drug, Doi.10.1080/10406638.2023.2216837.
22. A Kavi Bharathi, S Christopher Jeyaseelan, Shamima Hussain, A Milton Franklin Benial, Spectroscopic investigations, quantum chemical, molecular docking and drug likeness studies of t-butyl-3, 4, 5-trimethyl-2-pyrrole carboxylate, J Mol Struc, 1295 (2024) 136551.
23. S Pushpam, S Christopher Jeyaseelan, R Jesintha Rani, Shamima Hussain, A Milton Franklin Benial, Spectroscopic, quantum chemical investigation and molecular docking studies on N-(2-benzoylamino) phenyl benzamide: A novel SARS-CoV-2 drug, Doi.10.1002/jmr.3057.
24. P. Kavitha, S. Christopher Jeyaseelan, Synthesis, structural, vibrational and optical studies of dye incorporated glycine and ZnO semiorganic crystals, AIP Conf. Proc, 2995 (2024) 020056.
25. S. Pushpam, V. Sheelarani, S. Christopher Jeyaseelan, A. Milton Franklin Benial, Spectroscopic, Quantum Chemical and Molecular Docking Studies on N-(9H-Purin-6-yl) Benzamide: A Potent Antimalarial Agent, DOI: 10.1080/10406638.2023.2259051.
26. S. Christopher Jeyaseelan, P. Kavitha, N. Venktesh Bharathi, T. C. Sabari Girisun, K. Sakthipandi, Synthesis, structural, DFT computation, and nonlinear absorption studies of DL-methioninium maleate, J Mater Sci: Mater Electron 35 (2024) 1873.
27. Shivaraj B. Radder, B. Siddlingeshwar, S.R. Manohara, Sudhir M. Hiremath, Raviraj Kusanur, S. Christopher Jeyaseelan, Experimental and theoretical investigation on vibrational, electronic, and docking characteristics of 1-(3-nitro-phenyl)-5-phenyl-penta-2,4-dien-1-one (1NP5PP), Canadian Journal of Physics (2024) Doi.org/10.1139/cjp-2024-0040
28. Shivaprasadagouda Patil, Mahanthesh M Basanagouda, S Christopher Jeyaseelan, Ayisha Mulla, Gangadhar V Muddapur, Uday M Muddapur, Ashok H Sidarai, Effect of Concentration of TiO2 Nanoparticles on Thiadiazole Derivative and Their Molecular Docking Study, Journal of Fluorescence, 12 (2024) 1-10.

Conference / Seminar Presentations:

1. Participated in 'National workshop on optical characterization of materials' held at Gandhigram Rural Institute - Deemed University, Dindugal, Tamil Nadu, October 24, 2016.
2. Presented a paper on "Conformational, Vibrational Spectroscopic and Quantum Chemical Studies on 5-formyl-1h-pyrrole-2-carboxylic acid: A DFT approach", S. Christopher Jeyaseelan, R. Mohamed Asath, R. Premkumar, A. Milton Franklin Benial, at National Conference on Current Advancement in Physics, St. Johns College Palayamkottai, February 3-4, 2017.

3. Participated in training program on ‘The state of art analytical equipments’ held at Anna University, Chennai, Tamil Nadu, February 9 and 10, 2017.
4. Participated in workshop “Quantum mechanics as a tool for materials investigation” held at Madras University, Chennai, Tamil Nadu, March 17 and 18, 2017.
5. Presented a paper on “Conformational, Vibrational Spectroscopic and Quantum Chemical Studies on 5-Methoxyindole-3-carboxaldehyde: A DFT approach ”, S. Christopher Jeyaseelan, Shamima Hussain, R. Premkumar, A. Milton Franklin Benial, at 62th DAE-Solid State Physics Symposium, Bhabha Atomic Reasearch Centre, Mumbai, December 26-30, 2017.
6. Presented a paper on “Vibrational, Molecular Docking and Quantum Chemical Studies on 5-Methyl-1H-indole-3-carboxaldehyde” S. Christopher Jeyaseelan, Shamima Hussain, R. Premkumar, A. Milton Franklin Benial, at 4th National seminar on technologically Important Crystalline and Amorphous Solids, Kalasalingam University, Tamilnadu, March 2 and 3, 2018.
7. Presented a paper in 8th International Conference on Perspectives in Vibrational Spectroscopy, (ICOPVS-2020) held at Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalaru, on 24-29, February 2020.
8. Presented a research paper titled “Crystal structure, Hirsh fold surface and DFT studies of L-Aspartic acid monohydrate” in the International Conference on Recent Advances in Physics - 2024 (ICRAP’24) held at PG and Research Department of Physics, The American College on 10 and 11 January 2024.
9. Presented a research paper titled “Effect of Concentration of TiO_2 Nanoparticles on Thiadiazole Derivative and their Molecular Docking Study” in the International Conference on Role of Physics in Modern Technologies (ICRPMT’25) held at PG and Research Department of Physics, The American College on 8 and 9 January 2025.
10. Presented a research paper titled “Effect of Concentration of Tio2 Nanoparticles on Thiadiazole Derivative and their Molecular Docking Study” in the International Conference on Role of Physics in Modern Technologies (ICRPMT’25) held at PG and Research Department of Physics, The American College on 8 and 9 January 2025.
11. Presented a research paper titled “Spectroscopic, Quantum, Chemical and Molecular Docking Studies of 3-Indole Propionic Acid (IPA)” in the International Conference on Role of Physics in Modern Technologies (ICRPMT’25) held at PG and Research Department of Physics, The American College on 8 and 9 January 2025.
12. Presented a research paper titled “Spectroscopic, Quantum, Chemical and Molecular Docking Studies of 2-Ethyl-4-Methyl-1H-Imidazole-1-Propanenitrile Derivative of Imidazole (EMIP)” in the International Conference on Role of Physics in Modern Technologies (ICRPMT’25) held at PG and Research Department of Physics, The American College on 8 and 9 January 2025.
13. Presented a research paper titled “Synthesis and Characterization of Barium Chloride Doped DL-Valine Crystal” in the International Conference on Role of Physics in Modern Technologies (ICRPMT’25) held at PG and Research Department of Physics, The American College on 8 and 9 January 2025.
14. Presented a research paper titled “Synthesis, Quantum Chemical and Nonlinear Optical Studies of DL-Methioninium Maleate” in the International Conference on

Role of Physics in Modern Technologies (ICRPMT'25) held at PG and Research Department of Physics, The American College on 8 and 9 January 2025.

Lectures / Talks given:

1. Insilico Analysis and Interpretation Tools organized by physics department, SFR College, Sivakasi on 9th February 2024.
2. Workshop on Advanced Computational Tools for facilitating research organized by chemistry, biotechnology, botany department and IPR Cell of Sri Kaleeswari College, Sivakasi on 4th March, 2024.
3. One Day Workshop on Crack JAM Physics, Department of Physics, ANJAC College, Sivakasi on 4th February 2023.

Awards / Fellowships:

Best Poster presentation in 7th International Conference on Perspectives of Vibrational Spectroscopy (ICOPVS-2018) on 29-11-2018 at Bhabha Atomic Research Centre, DAE Convention Centre, Anushakthinagar, Mumbai-400094.