

Susaiammal Arokiasamy, B.Ed., M.Sc., Ph.D.

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Personal Web page

ResearchGate



Education

- Jan.2024 **Ph.D. in Computational Material Physics**, National Sun Yat-sen University, Kaohsiung, Taiwan.
- May 2021 **B.Ed.**, Ch.Charan Singh University, Meerut, India.
- May 2016 **M.Sc. in Physics**, St. Aloysius College (Autonomous), Mangalore, India.
- May 2013 **Diploma Course in Theology**, Jnana Deepa Institute of Philosophy and Theology, Pune, India
- May 2012 **B. Sc. in Physics, Mathematics, Computer Applications**, St. Bede's College, Shimla, India

Experience

- July 2024 – Oct. 2024 **Assistant Professor**, St. Bede's College, Shimla, India.
- July. 2021 – Dec.2023 **Teaching and Research Assistant**, National Sun Yat-sen University, Kaohsiung, Taiwan.
- Jan. 2018 – Dec.2019 **Assistant Professor**, St. Joseph's College (Autonomous), Jakhama, India
- Jan. 2017 – Dec.2017 **Lecturer**, St. Bede's College, Shimla, India
- Oct. 2016 – Dec.2016 **Lecturer**, St. Joseph's Girls Degree College, Meerut, India
- July 2016 -Oct. 2016 **Lecturer**, St. Bede's College, Shimla, India

Research Publications

Journal Articles

- 1 S. Arokiasamy, G. M. Macam, S. P. C, *et al.*, "Electronic, magnetic, and topological properties of ferromagnetic 2d perovskite-type oxides," *New Journal of Physics*, 2024, ISSN: 1367-2630. DOI: <https://doi.org/10.1088/1367-2630/ad9be0>.
- 2 R. K. M. M. S. M. S. A. T. S. M. G. M. A. I. V. P. A. A. J. T. N. Myasoedova, "Synergetic femose@ nico-ldh hybrid heterostructures as a stable and effective bifunctional catalyst for sustained overall water splitting and seawater splitting," *Journal of Alloys and Compounds*, 2024, ISSN: 0925-8388. DOI: <https://doi.org/10.1016/j.jallcom.2024.175389>.
- 3 S. Arokiasamy, G. M. Macam, R. A. B. Villaos, *et al.*, "Prediction of quantum spin hall and rashba effects in two-dimensional ilmenite oxides," *Chinese Journal of Physics*, vol. 86, pp. 242-254, 2023, ISSN: 0577-9073. DOI: <https://doi.org/10.1016/j.cjph.2023.09.022>.


Conference Proceedings

- 1 S. Arokiasamy, G. M. Macam, R. A. B. Villaos, *et al.*, "Quantum spin hall, van hove singularities, and rashba effect in two-dimensional perovskite oxides," in *Taiwan Physical Society Annual Meeting 2023*, Taiwan, 2023.


Poster Presentations

- 1 S. Arokiasamy, G. M. Macam, S. P. C, *et al.*, *Quantum anomalous hall effect in hematene-type two-dimensional perovskite oxides*, Taiwan Physical Society Annual Meeting 2024, Taiwan, 2024.
- 2 S. Arokiasamy, G. M. Macam, R. A. B. Villaos, *et al.*, *Prediction of quantum spin hall and rashba effects in two-dimensional perovskite oxides*, NCTS-KIAS Workshop on Ab Initio Approaches to Quantum Materials, Taiwan, 2023.


PhD Dissertation

- 1 S. Arokiasamy, *First-principles study on the topology of two-dimensional perovskite-type oxides*, PhD dissertation, 2024.  URL: https://ethesys.lis.nsysu.edu.tw/ETD-db/ETD-search-c/view_etd?URN=etd-0022124-172614.









PhD Colloquium

- 1 S. Arokiasamy, *First-principles study on the topology of two-dimensional abO_3 materials*, PhD Colloquium, 2024.  URL: <https://phys.nsysu.edu.tw/static/file/181/1181/img/985968005.pdf>.

Article(s) Under Review

- 2025  Highly entangled magnetodielectric, magnetostriction, and spin-phonon coupling phenomena in a chiral incommensurate antiferromagnet Ni_2ScSbO_6 , Neha Patel, Arkadeb Pal, C. W. Wang, G. R. Blake, J. Khatua, T. W. Yen, Susaiammal Arokiasamy, H. S. Kunwar, Y. C. Lai, Y. C. Chuang, V. Sathe, Kwang-Yong Choi, H. D. Yang, Sandip Chatterjee, <https://doi.org/10.48550/arXiv.2503.06043>, **(Under review in Physical Review B)**,

Scholarships, Awards and Achievements

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| 2020-2023 |  Elite Doctoral Student Scholarship , National Sun Yat-sen University, Kaohsiung, Taiwan |
| 2021-2023 |  Strengthening Cooperation and Exchange Plan with ASEAN and South Asian Countries R and D Elite Talent Professional class , Ministry of Education, Taiwan |
| Jan.2023 |  AAPPS Award , For excellent performance in oral presentation at annual meeting of TPS2023. Presented by Association of Asian Pacific Physical Society, TPS2023, Taiwan. |
| Apr.2021 |  For the successful participation and achievement of First Position In International Essay Writing Competition On Out Break of COVID-19: its impact and Assessment on Indian Economy |
| Apr.2016 |  Best Outgoing Student Award , Presented by St.Aloysius College, (Autonomous) Mangalore, India |
| Nov.2016 |  Rank Certificate , For securing 2nd rank in M.Sc. Physics, presented by St.Aloysius College, (Autonomous) Mangalore, India |
| Dec.2012 |  Zeitler Memorial Essay-Third Prize , Presented by Ishwani Kendra for Missiology, Pune, India |
| Jan.2012 |  National Essay-Third Prize , Presented by Petroleum and Natural Gas Conservation Research Association, New Delhi, India |











Courses on DFT/ Research/SWAYAM or NPTEL Courses/FDPs Attended

June.2025	■ Faculty Development Program (FDP) on Density Functional Theory Modelling of Advanced Materials (DFT -Advanced) organized by the Centre for Advanced Computational Research, Delhi from 9th June to 18th June 2025 via Online Mode.
May.2025	■ Deep learning for physicists an online Micro-credit course, National Sun Yat Sen University, Kaohsiung, Taiwan.
Feb.2025	■ Completed the Tanmaya Sadhana course at Sadhana Institute, Lonavala—an intensive program in integral human formation combining psychology, spirituality, and personal transformation from 6th January to 28th February.
Oct.2024	■ Completed the NEP 2020 Orientation and Sensitization Programme under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) Organized by Malaviya Mission Teacher Training Centre, Himachal Pradesh University, Shimla from 23rd September to 1st October.
Mar 2024	■ One-Day Workshop on Artificial Intelligence and Machine Learning: Exploring Advanced AI Platforms , Tryst 2024, IIT Delhi, India.
Mar 2022	■ 2022 Winter school on First Principles Computational Materials Research - Advanced Level , NCTS-Physics Division, Taiwan.
July 2021	■ Taken part in the online Teachers Training on Cyber Safety and Security organized by Indian Teacher Education Community, led by Ministry of Electronics and Information Technology(Meity) Government of India .
June. 2021	■ Center for Taiwan Academic Research Ethics Education Certificate of Completion , Ministry of Education, Taiwan.
May. 2021	■ 2021 Spring school on First Principles Computational Materials Research - Introductory Level , NCTS-Physics Division, Taiwan.
Feb. 2021	■ 20th International Workshop on Computational Physics and Materials Science: Total Energy and Force Methods , International Center for Theoretical Physics, Italy.
Nov. 2020	■ Participated the Virtual National Workshop on Biomaterials: Design, Development and Scope for Future Generation during November 03-07, 2020 organized by the Department of Mechanical Engineering, National Institute of Technology Manipur , Langol under the sponsorship of Technical Education Quality Improvement Programme (TEQIP)-III .
Aug. 2020	■ Participated in two days Faculty Development Program on Online Teaching Tools organised by Department of Computer Science, St. Bede's College, Shimla
Feb. 2017	■ Completed the course, ' Developing Soft Skills and personality ' through NPTEL online Certification with DISTINCTION 90% from IIT Kanpur.



Workshops/Seminars Attended

2020	■ Participated in National Webinar on New Education Policy (NEP) 2020 Forward Looking Policy , ST. JOSEPH'S GIRLS DEGREE COLLEGE, Sardhana(Meerut) U.P.
	■ Participated in International e-Conference on " Recent Trends in Advancement of Mathematical and Physical Sciences ", Deva Nagri College, Meerut.
	■ Participated in the International Virtual Conference on Physics of Solid State Materials , St. Aloysius College (Autonomous), Mangalore.
	■ Participated in a webinar on Low Dimensional Physics:A New Paradigm ,Department of Physics, St Joseph Engineering College, Mangaluru.






Workshops/Seminars Attended (continued)

- 2018  Participated in the National workshop on, “Advances in Production and Material Science Engineering” organized at NIT Nagaland.
- 2016  Participated in the one-day workshop on INNOVATIONS IN MEDICAL INSTRUMENTATION held at St. Aloysius College, Mangalore.
-  Participated in the National Workshop on **Theoretical Physics** held at Alva’s College, Moodbidri, Karnataka.
- 2015  Participated in one-day seminar on **THEORETICAL ASPECTS OF PARTICLE AND HIGH ENERGY PHYSICS** held at St. Philomena College, Puttur Karnataka.
-  **Attended in the one-day lecture series titled “Theory Fest: Celebrating Concepts in Theoretical Physics organized by PHYSIKA at SDM College, Ujire, Karnataka.**
-  Participated in the National Seminar “**SAGA OF LIGHT**” organized by the Department of Physics at St. Aloysius College, Mangalore.
-  Participated in the KSCSTE sponsored “**National seminar on OPTICS AND PHOTONICS** organized by Payyanur College, Kerala.
- 2014  Participated in the National Seminar on **X-Ray Crystallography** organized by the Department of Physics and Chemistry at St. Aloysius College, Mangalore.
- 2011  Attended UGC National Workshop Cum Seminar on **Physics Education Research: Research based Reforms in Physics Instruction** held at St. Bede’s College.
- 2004  Completed the **SPIRITUAL HUMAN YOGA INDIA** the level 3 seminar in Human and Universal Energy.

Membership in Professional Bodies

- Apr.2024 –present  **Member at Division of Condensed Matter Physics, Association of Asia Pacific Physical Societies(DCMP-AAPPS).** Membership ID: DCM-PCPST388NJMH.
- 2018 –2019  **Management and Governing Board member,**St. Joseph’s College (Autonomous), Jakhama, India.

Skills

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| Languages |  Strong reading, writing and speaking competencies for English, Tamil, Hindi. |
| Language Proficiency Tests |  TOEIC Listening and Reading test , TOEIC total score: 830 out of 990 (Dec. 2022) Taiwan. |
| Coding |  Python, Matlab, Mathematica, ... |
| DFT Packages |  VASP, Quantum ESPRESSO. |
| Misc. |  Academic research, teaching, effective communication, self-motivated, committed, determined, goal-oriented, community-minded, hardworking, and multitasking. |