Sri Sai Ram Engineering College

Department Of Humanities And Sciences

Name : Dr. N. Sivakumar	
Designation :	Associate Professor in Physics
Qualification :	M.Sc. PhD, Post doc. (UGC)
Area of Specialisation :	Nanomaterials, Thermoelectrics, Solar cells, Single crystals
Experience :	Teaching : UG : 9 years 1 month PG : Nil
	Industry : 3 years of Postdoc. research
No. of Workshop / Conferences / FDP attended	71
Publication :	Journal National : 2 International : 45
	Conference National : 5 International : 2
Research Guidance :	Yes-3770013 (Anna University Guideship)

General :	**Program Coordinator** : Research Internship Training Program (22.12.2022 to 11.01.2023) **Project Guide** : Unnat Bharat Abhiyan (2021-2022) **Member** : Internal Quality Assurance Cell Member (2021-2022) **Co-ordinator**: Awareness Meet on Materials Science with Ion Accelerator (19.07.2022) **Organizing Chair** : National Intellectual Property Awareness Mission Program (18.04.2022 to 22.04.2022) **Convener** : International Conference on Modern Functional Materials – ICMFM 2021 (24^{th} & 25^{th} June 2021)

Staff Achievements	● Kalki krishnamurthy fellowship for UG, ● Tamil Nadu Educational Trust fellowship for UG ● Best student and University Rank Holder award-UG ● Class Topper – PG, Presidency College (Autonomous), Chennai. ● **UGC-Dr. S. Kothari Postdoctoral Fellowship (2017)** ● Certificate of reviewing from the Journal Spectrochemica acta A, 2018. ● Certificate of outstanding contribution in reviewing from the Journal Materials Letters, 2018. ● **National Award** for Best thesis in Crystal Growth during Jan. 29-31, 2018 from Indian Association for Crystal Growth (IACG). ● Best Oral Presentation Award - NewPhy 2020, held at The New College, Chennai, India, during 21st, January, 2020. ● **DST-TARE Faculty (2021)**, DST-SERB, New Delhi. ● **Indian Spectro Physics Association (ISPA) Award 2022,** During the International Virtual Conference on Materials Science and Technology (ICMAST –2022), 15th March 2022, Kandaswamy Kandar's College, Velur, Namakkal. ● **Funded Projects Award,** During Teachers day, 5th September 2022 from Sri Sai Ram Engineering College, West Tambaram, Chennai.

Educational Qualification:

Category	Name of the Degree	Specialization	Year of Passing	Name of the College	Name of the University	% of Marks / Grades obtained	Class obtained
UG	B.Sc	General Physics	2007	Arignar Anna Govt. College	Thiruvalluvar University	87.47%	I Class with Distinction
PG	M.Sc	General Physics	2009	Presidency College	University of Madras	86.46%	I Class with Distinction
PhD	Doctor of Philosophy	Physics-Materials Science	2015	Presidency College	University of Madras	By thesis	By thesis

Academic Experience:

Name of the College	Designation	Joining Date	Relieving Date	Experience		
				Years	Months	Days
Sri Sai Ram Engineering College	Assistant Professor	02.11.2020	Till Date	2	4	02
Anna University	Postdoctoral Research Fellow	02.11.2017	01.11.2020	2	11	29
Saveetha School of Engineering	Assistant Professor (Senior)	04.06.2015	01.11.2017	2	4	28
VIT University, Vellore	Research Associate	01.08.2009	30.11.2010	1	3	31
			Total	9	1	0

LIST OF PUBLICATIONS IN INTERNATIONAL/NATIONAL JOURNALS:

[1]. N. Sivakumar, P. Vijayakumar, R. Jayavel, Ali Alsalme, Abdullah S. Alsulami, Yuui Yokota, Crystal structure, dielectric and magnetic studies of pure and Sr substituted LaFeO3 single crystal grown by optical floating zone technique, J. Alloys Compd. 943, (2023) 16916. doi.org/10.1016/j.jallcom.2023.169161, *Citation:*0, I.F. 6.371, ISSN: 0925-8388 (Q1)

[2]. N. Sivakumar, J. Gajendiran, Ali Alsalme, Kentaro Tashiro, Structural, morphological, optical, magnetic and electrochemical behavior of solid state synthesized pure and Sr-doped $LaFeO_3$ nanoparticles, Physica B 641 (2022) 414086. doi.org/10.1016/j.physb.2022.414086, *Citation:*0, I.F. 2.988, ISSN: 0921-4526 (Q3)

[3]. J. Venkatamuthukumar, Ali Alsalme, A. Jagadesan, A. Rajendira Prasad, N. Sivakumar, Dielectric studies of pure and ferric (Fe^{3+}) ion doped potassium hydrogen phthalate single crystals for potential device performances, AIP Conference Proceedings 2464, 030005 (2022) 1-5. doi.org/10.1063/5.0082411, *Citation:*0, I.F. 0.4801, ISSN: 0094-243X

[4]. J. Gajendiran , S. Gnanam, V.P. Senthil, J. Ramana Ramya, K. Ramachandran, V. Vijayakumar, S. Gokul Raj, G. Ramesh Kumar, N. Sivakumar, Hydrothermal synthesis of undoped and inner transition metals (neodymium (Nd), gadolinium (Gd)) doped tin monosulfide (SnS) nanostructures: Comparative study of the morphological, opto-magnetic properties and antibacterial performance, Chemical Physics Letters, 796 (2022) 139569. doi.org/10.1016/j.cplett.2022.139569, *Citation: 0*, I.F. 2.328, ISSN: 0009-2614 (Q3)

[5]. N. Sivakumar, J. Venkatamuthukumar, Magesh Murugesan, Ali Alsalme, Crystal structure, spectroscopic, crystalline perfection and optical studies of a potential optical material: Bis-glycine hydrobromide, Opt. Mater. 122 (2021) 111730. doi.org/10.1016/j.optmat.2021.111730, *Citation: 0*, I.F. 3.08, ISSN: 0957-4522 (Q2)

[6]. N. Sivakumar, J. Venkatamuthukumar, Ali Alsalme, Growth, structural, spectroscopic, optical, and mechanical studies of potassium hydrogen phthalate single crystals with glycine as additive, J Mater Sci: Mater Electron. 32, (2021) 18978–18993. doi.org/10.1007/s10854-021-06413-4, *Citation: 0*, I.F. 2.220, ISSN: 0957-4522 (Q2)

[7]. N. Sivakumar, P. Nagaraju, A. Alsalme, A. Alghamdi, R. Jayavel, Enhanced electrochemical performance of lanthanum ferrite decorated reduced graphene oxide nanocomposite electrodes prepared by in-situ microwave irradiation for energy storage applications, Int J Energy Res. 45 (2021) 5272-5282. doi.org/10.1002/er.6146, *Citation: 0*, I.F. 3.74, ISSN: 1099-114X. (Q1)

[8]. N. Sivakumar, G. Anbalagan, R. Jayavel, Reply to the comments on the paper: Crystal design, thermal and dielectric behavior of novel silver (Ag) co-ordinated thiourea single crystals, Mater. Lett. 280 (2020) 128674. doi.org/10.1016/j.matlet.2020.128674 *Citation: 0,* I.F. 3.019, ISSN: 0167-577X (Q2)

[9]. A. Jagadesan, N. Sivakumar, S. Arjunan, G. Parthipan, Growth, structural, optical, thermal and dielectric behaviour of a novel organic nonlinear optical (NLO) material: Benzimidazolium trichloroacetate monohydrate, Optical Materials, 109 (2020) 110285. doi.org/10.1016/j.optmat.2020.110285, *Citation: 1,* I.F. 2.779, ISSN: 0925-3467 (Q2)

[10]. N. Sivakumar, J. Kanchanadevi, M. Govindarajan, R. Jayavel, G. Anbalagan, Theoretical investigation on the crystal structure, spectral and optical properties of a novel organic optical material: (Acetoxy) (2-methylphenyl) methylacetate, Journal of Molecular Structure, 1219 (2020) 128579. doi.org/10.1016/j.molstruc.2020.128579. *Citation:*1, I.F. 2.120, ISSN: 0022-2860 (Q3)

[11]. J. Venkatamuthukumar, N. Sivakumar, R. Jayavel, G. Anbalagan, Synthesis, structure and spectroscopic investigations of a metal-organic crystal: Thiourea silver nitrate for optical devices, AIP Conference Proceedings 2265, 030410 (2020) 1-4. doi.org/10.1063/5.0017262, *Citation:*0, I.F. 0.4801, ISSN: 0094-243X

[12]. J. Gajendirana, V.P. Senthil, J. Ramana ramya, N. Sivakumar, T. Shanmugavel, S. Gokul raj, G. Ramesh kumar, The influence of temperature on the structural, morphological, optical, electrical, hemocompatibility and magnetic characterization of $CoFe_2O_4$ nanostructures, J. Optoelectron. Adv. Mater. 22 (2020) 286 - 297. *Citation:*0, I.F. 0.588, ISSN: 1454 - 4164 (Q4)

[13]. J. Gajendiran, S. Gnanam, V. Vijaya Kumar, K. Ramachandran, J. Ramana Ramya, S. Gokul Raj, N. Sivakumar, Structural, optical and photocatalytic properties of ZnS spherical/flake nanostructures by sugar-assisted hydrothermal process, Chemical Physics Letters 754 (2020) 137639. doi.org/10.1016/j.cplett.2020.137639. *Citation:*2, I.F. 1.901, ISSN: 0009-2614 (Q3)

[14]. N. Sivakumar, G. Anbalagan, R. Jayavel, Crystal design, thermal and dielectric behavior of novel silver (Ag) co-ordinated thiourea single crystals, Mater. Lett. 272 (2020) 127899. doi.org/10.1016/j.matlet.2020.127899. *Citation:*4, I.F. 3.019, ISSN: 0167-577X (Q2)

[15]. N. Sivakumar, J. Gajendiran, R. Jayavel, Microstructural, optical, electrochemical and magnetic properties of hydrothermal synthesized zincite/carbon (ZnO/C) composite, Chem. Phys. Lett. 745, (2020) 137262. doi.org/10.1016/j.cplett.2020.137262. *Citation:*1, I.F. 1.901, ISSN: 0009-2614 (Q3)

[16]. K. Krishnaraj, N. Sivakumar, P. Praveen Kumar, Growth, spectral, mechanical, electrical and optical characterization of guanidinium hydrogen succinate single crystal, Bull. Mater. Sci. 43 (2020) 1-7. doi.org/10.1007/s12034-019-2019-6. *Citation:*2, I.F. 1.260, ISSN: 0250-4707 (Q4)

[17]. J. Gajendiran, N. Sivakumar, C. Parthasaradhi Reddya, J. Ramana Ramya, The effect of calcination's temperature on the structural, morphological, optical behaviour, hemocompatibility and antibacterial activity of nanocrystalline Co_3O_4 powders, Ceramics International, 46 (2020) 5469-5476. doi.org. 10.1016/j.ceramint.2019.10.261. *Citation:*3, I.F. 3.450. ISSN: 0272-8842 (Q1)

[18]. M. Manonmani, V.P. Senthil, J. Gajendiran, J.R. Ramya, N. Sivakumar, V. Jaikumar, S. Gokul Raj, G. Ramesh Kumar, A study of the structural, magnetic, hemocompatibility and electrochemical properties of $BiFeO_3$ (BFO)/$CoFe_2O_4$− (CFO) nanocomposite, J. Mater. Sci. Mater. Electron. 30 (2019) 10934–10943. doi:10.1007/s10854-019-01437-3. *Citation:*2, I.F. 2.198, ISSN: 0957-4522 (Q2)

[19] A. Jagadesan, N. Sivakumar, R. Mohan Kumar, G. Chakkaravarthi, S. Arjunan, Synthesis, crystal structure, growth and characterization of an optical organic material: 4-Aminopyridinium Trichloro acetate single crystal, Opt. Mater. (Amst). 84, (2018) 864–869. doi:10.1016/j.optmat.2018.08.025. *Citation:*9, I.F. 2.687, ISSN: 0925-3467 (Q2)

[20]. N. Sivakumar, R. Jayavel, G. Anbalagan, R.R. Yadav, Synthesis, growth, spectral, electrical, mechanical and thermal characterization of a potential optical material: γ-glycine single crystal, Opt. Mater. (Amst). 80, (2018) 177-185. doi:10.1016/j.optmat.2018.04.051. *Citation:*5, I.F. 2.687, ISSN: 0925-3467 (Q2)

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[22]. R. Dhanjayan, N. Sivakumar, S. Gunasekaran, S. Srinivasan, Synthesis, crystal structure, optical and thermal studies of a potential novel organic material: L-Histidine-2-fluoro-4-nitrophenolate 2-fluoro-4-nitrophenol single crystal, Mater. Lett. 196 (2017) 74-77. doi:10.1016/j.matlet.2017.03.010. *Citation:*3, I.F. 3.019, ISSN: 0167-577X (Q2)

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[24] N. Sivakumar, N.K. Geetha, J. Venkatamuthukumar, V. Jayakumar, Mechanical studies on pure and Fe^{3+} doped potassium hydrogen phthalate single crystals for device fabrications, Indian J. Sci. Technol. 9 (2016) 1-9. doi:10.17485/ijst/2016/v9i36/100852. *Citation:*0, I.F. 0.8, ISSN : 0974-6846.

[25] N. Sivakumar, G. Anbalagan, Third order optical non-linear (Z-scan), birefringence, photoluminescence, mechanical and etching studies on melaminium levulinate monohydrate (MLM) single crystal for optical device applications, Opt. Mater. (Amst). 60 (2016) 533-540. doi:10.1016/j.optmat.2016.09.010. *Citation:*19, I.F. 2.238, ISSN : 0925-3467 (Q2)

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[27] N. Sivakumar, V. Jaisankar, G. Chakkaravarthi, G. Anbalagan, Synthesis, crystal structure, optical, thermal and mechanical characterization of poly bis(thiourea) silver(I) nitrate single crystals synthesized at room temperature, Mater. Lett. 132 (2014) 298-301. doi:10.1016/j.matlet.2014.06.079. *Citation:*9, I.F. 2.489, ISSN : 0167-577X (Q2)

[28] N. Sivakumar, S. Muralidharan, G. Chakkaravarthi, D. Velmurugan, G. Anbalagan, Crystal structure of bis[4-(dimethylamino)pyridinium] bis(2-nitrobenzoate) trihydrate, Acta Crystallogr. Sect. E Struct. Reports Online. 70 (2014) 221-223. doi:10.1107/S1600536814020583. *Citation:*3, I.F. 0.5, ISSN: 2056-9890 (Q4)

[29] N. Sivakumar, V. Jayaramakrishnan, K. Baskar, G. Anbalagan, Synthesis, growth and characterization of γ-glycine - A promising material for optical applications, Opt. Mater. (Amst). 37 (2014) 780-787. doi:10.1016/j.optmat.2014.09.007. *Citation:*14, I.F. 2.238, ISSN : 0925-3467 (Q2)

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[33] P. Krishnan, S. Gunasekaran, G. Anbalagan, N. Sivakumar, K. Gayathri, Nucleation kinetics, growth, crystalline perfection, mechanical, thermal, optical and electrical characterization of brucinium 2-carboxy-6-nitrophthalate dihydrate single crystal, J. Cryst. Growth. 396 (2014) 85–94. doi:10.1016/j.jcrysgro.2014.03.044. *Citation:27*, I.F. 1.515, ISSN : 0022-0248 (Q3)

[34] N. Sivakumar, N. Kanagathara, B. Varghese, G. Bhagavannarayana, S. Gunasekaran, G. Anbalagan, Structure, crystal growth, optical and mechanical studies of poly bis (thiourea) silver (I) nitrate single crystal: A new semi organic NLO material, Spectrochim. Acta - Part A Mol. Biomol. Spectrosc. 118 (2014) 603–613. doi:10.1016/j.saa.2013.09.010. *Citation:*23, I.F. 2.653, ISSN: 1386-1425 (Q1)

[35] N. Sivakumar, N. Kanagathara, K. Gayathri, P. Krishnan, G. Anbalagan, Synthesis, thermal decomposition and dielectric behavior of bis(thiourea)silver(I)nitrate: A new semi-organic single crystal, J. Therm. Anal. Calorim. 115 (2014) 1295-1301. doi:10.1007/s10973-013-3430-7. *Citation:*7, I.F. 2.042, ISSN : 1388-6150. (Q3)

[36] V. Sangeetha, K. Gayathri, P. Krishnan, N. Kanagathara, N. Sivakumar, G. Anbalagan, Growth, optical, thermal, dielectric and microhardness characterizations of melaminium bis (trifluoroacetate) trihydrate single crystal, J. Cryst. Growth. 389 (2014) 30-38. doi:10.1016/j.jcrysgro.2013.11.026. *Citations : 58*, I.F. 1.515, ISSN : 0022-0248 (Q3)

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LIST OF NATIONAL AND INTERNATIONAL CONFERENCES / SEMINARS / WORKSHOPS ATTENDED/PRESENTED:

1. N. Sivakumar, participated and presented a research paper entitled "A thermal kinetic approach of an Organic single crystal: p-nitrobenzylidene-p phenylamineaniline**"** in the "Virtual International Transdisciplinary Conference" held at Department of Physics, VIT University, Vellore, Tamil Nadu, India, during 26 -28th August, 2020.
2. N. Sivakumar, participated in the "International Webinar on recent advances in materials science and technology" held at Department of Physics, Aditanar College of Arts and Science, Tiruchendur, Tamil Nadu, India, during 26th June, 2020.
3. N. Sivakumar, participated in the "Webinar Basic author workshop research article writing and reference management using mendeley" held at Annamalai University, Chidambaram, Tamil Nadu, India, during 22nd June, 2020.
4. N. Sivakumar, participated in the "Virtual symposium on multifunctional materials" held at Department of Physics, SRM Institute of Science and Technology, Chennai, Tamil Nadu, India, during 17th June, 2020.
5. N. Sivakumar, participated in the "Webinar on Graphene based Nanocomposites for Energy storage" held at Department of Physics, V.O. Chidambaram College, Thoothukudi, Tamil Nadu, India, during 1st June, 2020.

6. N. Sivakumar, participated in the "International Webinar on functional novel materials for electrochemical sensors and energy storage devices" held at Thiyagarajar College, Madurai, India, during 15th May, 2020.
7. N. Sivakumar, participated and presented a research paper entitled "Crystal structure and thermal kinetic approach on benzylideneaniline derivative:p-nitrobenzylidene-p-phenylamineaniline" in the "24th National seminar on crystal growth and applications (XXIV NSCGA-2020)" held at Department of Physics, Periyar University, Salem, India, during 3-5, February, 2020.
8. N. Sivakumar, participated and presented a research paper entitled "Synthesis, structure crystalline perfection and mechanical hardness of pure and strontium substituted $LaFeO_3$ single crystals" in the "International conference on Recent Advancements in Material Science (NewPhy 2020)" held at The New College, Chennai, India, during 21st, January, 2020.
9. N. Sivakumar, participated and presented a research paper entitled "Synthesis, structure and thermal kinetics of an organic crystalline material: p-dinitrobenzylidene-p-diethylamineaniline" in the "International conference on Advances in chemistry with specific reference to catalysis, sensors, drug delivery and energy materials" held at University of Madras, Chennai, India, during 9 -10, January, 2020.
10. N. Sivakumar, participated and presented a research paper entitled "Synthesis, structure and spectroscopic investigations of a metal-organic crystal: Thiourea silver nitrate for optical devices" in the "64th DAE-Solid State Physics Symposium" held at Indian Institute of Technology Jodhpur, Rajasthan, India, during 18 -22, December, 2019.
11. N. Sivakumar, participated and presented a research paper entitled " Synthesis, structure and thermal decomposition behavior of an organic material: p-nitrobenzylidene-p-phenylamineaniline" in the "30th Annual General Meeting of MRSI" held at IISc, Bangalore, India, during 12-15, February, 2019.
12. N. Sivakumar, participated in "International Workshop on Crystalline Materials and Applications" held at Crystal Growth Centre, Anna University, Chennai, Tamil Nadu, India, during 03-05, January, 2019.
13. N. Sivakumar, participated in "Workshop on Research Methodology and Scientific Writing" held at Centre for Research, Anna University, Chennai, Tamil Nadu, India, during 11-12, July, 2018.
14. N. Sivakumar, participated in "Research for Resurgence" held at Centre for Research, Anna University, Chennai, Tamil Nadu, India, during 13, March, 2018.
15. N. Sivakumar, R. Jayavel and G. Anbalagan, participated and presented a research paper entitled "Nucleation studies and bulk growth of novel metal organic polymeric single crystal: thiourea silver nitrate $\{7(CH_4N_2S).4(AgNO_3)\}n$ for Nonlinear optical applications" in the "National Seminar on Crystal Growth and Applications" held at Sacred Heart College, Tirupattur, Vellore, Tamil Nadu, India, during 29-31, January, 2018.
16. N. Sivakumar, participated in the DST-PURSE and ANNA UNIVERSITY sponsored "International Workshop on recent materials for healthcare and industrial applications (IWRM-2018)" held at Anna University, Chennai, Tamil Nadu, India, during 22-23, January, 2018.
17. N. Sivakumar, participated in the "International Workshop on Advanced Materials and Device Technology (IWAMDT-2017)" held at Anna University, Chennai, Tamil Nadu, India, during 22-24, November, 2017.
18. N. Sivakumar participated in One day carrier oriented Workshop and Hands-on Training on 'NON-DESTRUCTIVE TESTING METHODOLOGIES & TECHNIQUES'

Conducted by TWG GROUP, held at Saveetha University, Chennai, Tamil Nadu, India, During 25th, February, 2017.

19. N. Sivakumar participated and presented a Research Paper entitled 'Structural and spectroscopic characterization studies of metal organic material: poly bis (thiourea) silver (I) nitrate (TUSN) single crystal' in an International conference on recent advancements in materials chemistry (ICRAMC) held at SRM University, Chennai, Tamil Nadu, India, During 5-17, February, 2017.
20. N. Sivakumar participated and presented a Research Paper entitled 'Assessment of optimal combination of operating parameters using graph theory matrix approach' in an International conference on design, analysis, manufacturing and simulations (ICDAMS) held at Saveetha University, Chennai, Tamil Nadu, India, During 7-8, April, 2016.
21. N. Sivakumar participated and presented a Research Paper entitled 'Mechanical studies on pure and fe^{3+} doped potassium hydrogen phthalate single crystals for device fabrications' in an International conference on design, analysis, manufacturing and simulations (ICDAMS), held at Saveeth University, Chennai, Tamil Nadu, India, During 7-8, April, 2016.
22. N. Sivakumar participated in the "National Workshop on luminescence materials devices and applications (LMDA-15)" in the IGCAR, Kalpakkam, Tamil Nadu, India, during 19-20, August, 2015.
23. N. Sivakumar participated and presented a paper entitled " Third harmonic generation studies on glycine phosphite (GPI) single crystals for optical device fabrications" in the National conference on Advanced materials science (NCMAS-2015)" held at Jerusalem College of Engineering, Chennai, Tamil Nadu, India, during 22nd July, 2015.
24. N. Sivakumar participated in the "Science Academies' Lecture workshop on Topics in Theoretical physics" in the Presidency College, Chennai, Tamil Nadu, India, during 10-11, March, 2014.
25. N. Sivakumar and G. Anbalagan, participated and presented the research work entitled "Growth, structural, optical, mechanical, laser damage threshold and SHG properties of γ-glycine single crystal" in the "National Seminar on Recent Advances in Physics-2014" held at Presidency College, Chennai, Tamil Nadu, India, during 7-8, March, 2014.
26. N. Sivakumar and G. Anbalagan, participated and presented a poster entitled "Structure, Crystal Growth and Characterization of LTPN crystal" in the "XVIII National Seminar on Crystal Growth" held at SSN College, Chennai, Tamil Nadu, India, during 24-26, February, 2014.
27. N. Sivakumar, N. Kanagathara, P. Krishnan, K. Gayathri, G. Anbalagan, participated and presented a paper entitled "Structural investigation on polymeric metal organic single crystal: poly bis(thiourea) silver nitrate" in the "International Conference on Advanced Materials and Manufacturing" held at Cape Institute of Technology, Levengipuram, Tirunelveli, Tamil Nadu, India, during 11-12, April, 2013.
28. N. Sivakumar, N. Kanagathara, P. Krishnan, K. Gayathri, G. Anbalagan, participated and presented a paper entitled "Synthesis, Growth and Characterization of pure and succinic acid mixed glycine phosphite (GPI) single crystals" in the "National Seminar on Recent Trends in Crystal Growth and Nano Materials (NSCGNM-2013)" held at National College, Tricy, Tamil Nadu, India, during 13-15, March, 2013.
29. N. Sivakumar, N. Kanagathara, P. Krishnan, K. Gayathri, G. Anbalagan, participated and presented a paper entitled "Structural and Non-linear optical studies of new polymeric single crystal: Poly bis thiourea silver (I) nitrate" in the "National Conference on

Perspectives in Lasers and spectroscopy (NCPLAS-2013)" held at Dr. MGR University, Adayalampattu, Chennai, Tamil Nadu, India, during 15th February, 2013.

30. N. Sivakumar participated the seminar on "Higgs Boson and Neutrino" held at University of Madras, Chennai, Tamil Nadu, India, during 7, December, 2012.
31. N. Sivakumar, N. Kanagathara, K. Gayathri, P. Krishnan, S. Joshna and G. Anbalagan, participated and presented a poster entitled "Synthesis, Growth and Characterization of Non-linear Optical Single Crystal: Glycine Succinate" in the "International Conference on Research: Perspectives and procedures" held at Vaishnav College, Chennai, Tamil Nadu, India, during 23-24, August, 2012.
32. N. Sivakumar, R. Mohan Kumar and G. Anbalagan, participated and presented a poster entitled "Effect of Glycine doping in Potassium Hydrogen Phthalate (KHP) crystals on structural and optical properties" in the "International Conference on Recent Trends in Advanced Materials (ICRAM-2012)" held at VIT University, Vellore, India, during 20-22, February, 2012.
33. N. Sivakumar participated in the "National Conference on Green Chemistry" held at Presidency College, Chennai, Tamil Nadu, India, during 10th February, 2012.
34. N. Sivakumar, R. Mohan Kumar and G. Anbalagan, participated and presented a poster entitled "Optical and its related parameters of Glycine Phosphite (GPI) single crystals for Optical Devices" in the "National Conference on Recent Advances in Materials and Technology" held at Sathyabama University, Chennai, Tamil Nadu, India, during 6-7, January, 2012.
35. N. Sivakumar, N. Kanagathara, K. Gayathri, P. Krishnan and G. Anbalagan, participated and presented a paper entitled "Optical and its related parameters of pure and amino acid: Glycine doped Potassium Hydrogen Phthalate single crystals" in the "2nd International Conference on Science, Engineering and Technology" held at VIT University, Vellore, Tamil Nadu, India, during 20-21 April, 2011.
36. N. Sivakumar participated in "One day seminar on 50 years of lasers" held at RKM Vivekananda College, Chennai, Tamil Nadu, India, during 19th February, 2011.
37. N. Sivakumar participated in "National Workshop on Modern Techniques in Analytical Chemistry" held at SCSVM University, Enathur, Kanchipuram, Tamil Nadu, India, during 10-11, February, 2011.
38. N. Sivakumar participated in "National level conference on the recent trends in the field of Nanoscience and Technology-NANOMEET-2010" held at Anna University, Chennai, Tamil Nadu, India, during 25-26, March, 2010.
39. N. Sivakumar participated and presented a research paper in "Tamil conference on crystal growth" held at Anna University, Chennai, Tamil Nadu, India, during 18-19, October, 2010.
40. N. Sivakumar participated in "One day seminar on Essentials of Good Research – Trends and techniques" held at VIT University, Vellore, Tamil Nadu, India, during 30th October, 2010.
41. N. Sivakumar participated in "UGC sponsored workshop on Recent Trends in Crystal Growth" held at Anna University, Chennai, Tamil Nadu, India, during 30th, March, 2010.
42. N. Sivakumar participated and presented a research paper entitled, " Evaluation of the Physico-chemical parameters on the pollutant Migration and their relation with ultrasonic wave velocity in the ground water of the polluted sites of Vellore district" in Eighteen National symposium on Ultrasonics, held at VIT University, Vellore, Tamil Nadu, India, during 21-23, December, 2009.

43. N. Sivakumar participated in "Pre-Symposium workshop on Biomedical Applications of Ultrasonics/Ultrasonics in Materials Research" held at VIT University, Vellore, Tamil Nadu, India, during 19-20, December, 2009.
44. N. Sivakumar participated in "The 6th National symposium and conference on solid state chemistry and allied areas" held at VIT University, Tamil Nadu, India, during 19-21, November, 2009.
45. N. Sivakumar participated in "The state level seminar on Recent Advancements in solar energy applications" Presidency College, Chennai, Tamil Nadu, India, during 21-22, April, 2009.

LIST OF CERTIFICATE COURSES/FDP ATTENDED:

1. **N. Sivakumar** participated in the "International Online School on Functional Advanced Materials For Emerging Applications-2021", held at Institute of Materials Science of Barcelona (ICMAB-CSIC), Campus of the Autonomous University of Barcelona (UAB), 08193 Bellaterra, Spain, during 28-2, June-July 2021.

2. **N. Sivakumar** participated in the "International Virtual Conference on Thermoelectrics (VCT2021)" held at International Thermoelectric Society and Colorado School of Mines, Golden, CO 80401, United States, during 20-22, July 2021.

3. **N. Sivakumar** participated in the "International Summer Program 2021" held at Graduate School of Science, Osaka University, Japan, during 13-21, July 2021.

4. **N. Sivakumar** participated in the "International E-Conference on Solar Power Technologies" held at Institute for Solar Fuels at the Helmholtz-Zentrum Berlin, Germany, during 5-8, July 2021.

5. **N. Sivakumar** participated in the "IX International Scientific Conference " Actual Problems of Solid State Physics" held at Scientific-Practical Materials Research Centre of National Academy of Science of Belarus Minsk 220072,Brovki 19, Belarus, during 22-26, November 2020.

6. **N. Sivakumar** participated in the "International Conference on ADVANCED MATERIALS SCIENCE AND GRAPHENE NANOTECHNOLOGY" held at The University of Manchester, United Kingdom, during 25-26, November 2020.

7. **N. Sivakumar** participated in the "International Online Conference on Electron Beam Spectroscopy for Nano Optics 2021" held at Institut de Physique Nucleaire Orsay, Georges Clemenceau - 91406, Orsay, France, during 14-15 June 2021.

8. **N. Sivakumar** participated in the Webinar on "Benchtop NMR analysis and the future" held at Oxford Instruments, Abingdon, United Kingdom, during 9 June 2021.

9. **N. Sivakumar** participated in the Webinar on "Solving challenges in green energy research with Raman spectroscopy" Organized by Renishaw, Wotton-Under-Edge, United Kingdom, during 8 June 2021.

10. **N. Sivakumar** participated in the Webinar on "Corrosion Science and Technology 2021" held at IGCAR The Indian Institute of Metals (IIM), Kalpakkam Chapter, India, during 12 May, 2021

11. **N. Sivakumar** participated in the AICTE-STC on "Advanced Materials Characterizations: From fundamentals towards applications: held at Department of Ceramic Engineering, IIT (BHU), And Department of Metallurgical Engineering, IIT (BHU) Varanasi-221005, during 22-26 Feb. 2021.

12. **N. Sivakumar** participated in the AICTE-STC on "Nanoelectronics Devices and Circuits" held at Indian Institute of Technology (BHU), Varanasi – 221005, (U.P.), during 4-9 January 2021.

13. **N. Sivakumar** participated in the AICTE-Workshop on "Effective Research Paper writing& Patent Filing" held at PSGCAS Intellectual Property Rights (IPR) cell, PSG College ofArts & Science, Coimbatore, India, during 26, December 2020.

14. **N. Sivakumar** participated in the ATAL FDP "Green Technology and Sustainability" heldat Engineering Department of Mechanical Engineering, National Institute of Technology,Raipur, India, during 8-12 December, 2020

15. **N. Sivakumar** participated in "Grant Writing under Physical Sciences domain" organizedby MHRD-STARS, IISc, Bangalore, during 7 December, 2020

16. **N. Sivakumar** participated in the Research Avenues in Alternate Energy Systems held at Government College of Technology, Coimbatore, India, during 23-27 November, 2020

17. **N. Sivakumar** participated in the FDP on "Astrophysics" JAMAL MOHAMED COLLEGE, Tiruchirappalli, India, during 11-12 November, 2020
18. N. Sivakumar participated in the FDP on "Advanced materials for energy storage applications" held at Department of Physics, Velammal Institute of Technology, Chennai 601204, Tamil Nadu, India, during 18-22, July, 2020.
19. N. Sivakumar participated in the FDP on "Evolution of functional materials and its effective characterization towards diverse engineering applications" held at Department of Physics, Kumaraguru Institute of Technology, Coimbatore, Tamil Nadu, India, during 22-29, June 2020.

20. N. Sivakumar participated in the FDP on "Smart materials sensor and energy devices" held at Department of ECE, SSN College of Engineering, Kalavakkam, 603 110, Tamil Nadu, India, during 25-30, May 2020.
21. N. Sivakumar participated in the DST-SERB school on "Photoics Phenomena, Materials and Devices" held at Crystal Growth Centre, Anna University, Chennai-25, Tamil Nadu, India, during 02-21, December, 2019.
22. N. Sivakumar participated in the Refresher course "Two-dimensional Materials: Physics and Applications" held at Department of Physics, IITM Chennai-36, Tamil Nadu, India, during 21-26, September, 2019.
23. N. Sivakumar participated in the GIAN course on "Scanning and Transmission Electron Microscopy: Basics and Applications to Low Dimensional Structures" held at Crystal Growth Centre, Anna University, Chennai -25, Tamil Nadu, India, during 03-07, December, 2018.
24. N. Sivakumar participated in the GIAN course on "Advanced X-ray diffraction techniques for the characterization of materials" held at Crystal Growth Centre, Anna University, Chennai -25, Tamil Nadu, India, during 17-25, January, 2018.
25. N. Sivakumar participated in the GIAN course on "Latest Methods in Protein Crystallization and Structural Biology" held at Crystal Growth Centre, Anna University, Chennai -25, Tamil Nadu, India, during 11-15, December, 2017.
26. N. Sivakumar participated in the summer school on "Atmospheric Sciences" Organized Jointly by ISRO, Bangalore and Department of Physics, IIT Madras, Chennai, Tamil Nadu, India, during 5-10, May, 2008.

LIST OF INVITED TALKS/GUEST LECTURE GIVEN:

1. **N. Sivakumar** delivered an invited talk on "Developments in optical communication**"** helt at Agurchand Manmull Jain College, Department of Electronics and Communication Science and Physics with Computer Applicaitons, Meenambakkam, Chennai-600 061, Tamil Nadu, India, during 7th, Oct. 2022.
2. **N. Sivakumar** delivered an invited talk on "Crystal growth and mechanical behavior of pure and strontium substituted $LaFeO_3$ single crystals grown from optical floating-zone technique" helt at Virtual International Conference on Functional Materials and its Application Aspects (ICFMAA – 2021), Department of Materials Science, Saveetha University, Chennai-602 105, Tamil Nadu, India, during 29-30th, Oct. 2021.
3. **N. Sivakumar** delivered an invited talk on "**Growth and characterization of Sr substituted $LaFeO_3$ single crystals by optical floating-zone technique"** helt at National Conference on Functional Materials and its Application Aspects (NCFMAA – 2021), Department of Materials Science, Saveetha University, Chennai-602 105, Tamil Nadu, India, during 11-12th, Aug. 2022.
4. **N. Sivakumar** delivered an invited talk on "Crystal growth and mechanical behavior of pure and strontium substituted $LaFeO_3$ single crystals grown from optical floating-zone technique" helt at Virtual International Conference on Functional Materials and its Application Aspects (ICFMAA – 2021), Department of Materials Science, Saveetha University, Chennai-602 105, Tamil Nadu, India, during 29-30th, Oct. 2021.

5. **N. Sivakumar** given a guest lecture on "Advanced developments in synthesis of Bio-nano crystal structures" held at Department of Bio-Medical Engineering, AVIT, Paiyanoor, Chennai-603 104, Tamil Nadu, India, during 13, November, 2020.
6. **N. Sivakumar** delivered wabinar talk on "Advancement of Thermal studies on Technologically important Materials" held at Saraswathi College of Engineering and Technology, Olakkur, Tindivanam-604 305, Tamil Nadu, India, during 14th, Sep., 2020.
7. **N. Sivakumar** delivered webinar talk on "Advancements in Optical Communication through Optical Fibres " held at Department of Physics, V.V.Vanniaperumal College of Women, Virudhunagar-626 001, Tamil Nadu, India, during 27th, May, 2020.
8. **N. Sivakumar** delivered an Invited talk on "Crystal Structure and thermal kinetic approach on benzylideneaniline derivartive: p-nitrobenzylidene-p-phenylamineaniline" held at National Conference on Functional Materials and its Applicational Aspects (NCFMAA-2020), Department of Materials Science, Saveetha University, Chennai-602 105, Tamil Nadu, India, during 6th, March, 2020.
9. **N. Sivakumar** given a guest lecture on "Modern cutting-Edge Research on Artificial emulation fo Human Bone for Bio-Medical Application" held at Department of Bio-Medical Engineering, AVIT, Paiyanoor, Chennai-603 104, Tamil Nadu, India, during 27, February, 2020.
10. **N. Sivakumar** given a guest lecture on "Recent trends in Bio-Medical Research" held at Department of Bio-Medical Engineering, AVIT, Paiyanoor, Chennai -603 104, Tamil Nadu, India, during 28, August, 2019.

Other Academic Responsibilities/Teaching methodology:

Position	Programme	Duration	Institution	Responsibility
Coordinator	Faculty Development Programme	2017-2018	Saveetha School of Engineering	Incharge
Coordinator	Faculty Development Programme	2016-2017	Saveetha School of Engineering	Incharge
Organizer	International conference (ICDAM' 2016)	7-8 April, 2016	Saveetha School of Engineering	Organization
Coordinator	Faculty Development Programme	2015-2016	Saveetha School of Engineering	Incharge
Coordinator	Exam Cell In-charge	2015-2017	Saveetha School of Engineering	Exam cell work for BE students
Faculty	Multiple Interactive Learning Activity (MILA)	2015-2018	Saveetha School of Engineering	Teaching to the students with MILA learning activities

Other Academic Credentials.

Number of Publications in International/National Journals : **47**

Conference/UGC listed papers : **07**

Attended/papers presented in International/National conferences/Courses : **45**

Certificate courses/FDP/Foreign conferences/Foreign webinars : **26**

Number of invited talks/guest lecture : **08**

No. of Students completed for their Ph.D. : **01**

No. of Students currently working for their Ph.D. : **01**

International Research Recognition:

Research Citation: 438 on 29.01.2022 *h*-Index: 11, i10 index : 13 **(Google Scholar)**.
https://scholar.google.com/citations?user=E4_uTp4AAAAJ&hl=en

Research Gate Score : **27** on 29.01.2022
https://www.researchgate.net/profile/N_Sivakumar2

Membership in Professional bodies:

1. Indian Association for Crystal Growth (No. 2015-31)

2. Indian Association of Physics Teachers (No. 11981 L7944)

3. The Institute of Electrical and Electronics Engineers (IEEE. No. 98102171)

Reviewer in the following Journals:

1. Materials Letters (Elsevier)
2. Optical Materials (Elsevier)
3. Spectrochimica Acta A: Molecualr and Bio molecular spectroscopy (Elsevier)
4. Materials Chemistry and Physics (Elsevier)
5. World Journal of Applied Chemistry (Science Publishing)
6. Turkish Journal of Chemistry (Scientific and Technological Research)
7. Journal of Alloys and Compounds (Elsevier)
8. Materials Today Proceedings (Elsevier)
9. Journal of Solid State Electrochemistry (Springer)
10. J Mater Sci: Mater Electron. (Springer)

Sponsored Research Projects (PDF Work):

Sl. No	Title of the project	Position	Funding Agency	Duration	Grant (Rs.)
1.	**Growth of potential organic n-benzylideneaniline derivative single crystals for phase and polarization modulator applications**	Principal Investigator	UGC	2017-2020	30,000,00

Research Projects (Ongoing):

Sl. No	Title of the project	Position	Funding Agency	Duration	Grant Applicable
1.	Development of novel 2D organic−inorganic hybrid halide perovskite materials for efficient Photovoltaic applications	Principal Investigator	DST-TARE, Delhi. (Rs. 18,30,000/-)	3 Years (Dec.2021-Nov. 2024)	Synthesis and fabrication of solar cell
2.	Reseachers Supporting Project (RSP-2021/78)	Principal Investigator	King Saud University (Rs. 50,000/-)	Long term	Supporting for chemcials and characterization
3	Investigation of novel ABC ternary polycrystalline materials for microwave dielectric applications	Principal Investigator	UGC-DAE CSR (Rs. 1,35,000/-)	3 Years (April 2022-March 2025)	Synthesis and Characterization of microwave-dielectric properties

Research Projects (Submitted):

Sl. No	Title of the project	Position	Funding Agency	Duration	Status
1.	Development of novel Organic-Inorganic Hybrid 2D Perovskite materials for an efficient solar cell device performance	Principal Investigator	ISRO (Rs.68,73,280/-)	3 Years (Submitted on 08-06-2022)	Under Review

Patent Publication:

Sl. No	Title of the patent	Candidates	Application No.	Publication No.	Date of Publication
1.	Growth Process of Melaminium Levulinate Monohydrate Crystal	Dr. N. Sivakumar	202141048795	48/2021	**26/11/2021**