

Dr.M.ISMAIL FATHIMA

Assistant Professor III

Velammal College of Engineering and Technology, Madurai

E-Mail Id:

Blog Address:

**Educational Qualification:**

Level	Degree	Specialization	University	Year of Completion
PG	Ph.D	Physics	MKU	2022
PG	M.Sc	Psychology	TNOU	2015
PG	M.Phil	Education	TNTEU	2014
PG	M.Ed	Education	TNTEU	2012
UG	B.Ed	Physical Science	TNTEU	2008
PG	M.sc	Physics	MKU	2011
UG	B.Sc	Physics	MKU	2006

Experience in Years: 2 years 2 months**Employment history**

S.No	Name of the college	Designation	Year
1	Assistant Professor of Physics	Madonna Arts and Science college for women, Madurai, Tamilnadu	2021-2022
2	Assistant Professor of Physics	Mangayarkarasi college of Arts and Science for women, Madurai, Tamil Nadu	2022 – 2023
3.	Associate Professor	Sethu Institute of technology	2022-2023
4.	Assistant Professor III	Velammal college of engineering and technology	2024- onwards

Interested Research Areas:

Photonics, Photovoltaics, Meta materials

Scholarships and Awards received:

S.No	Name of Award	Awarding Agency	Year
1.	Best presentation award	Thiagarajar college of engineering Tamil Nadu	2017
2.	Best presentation award	Madurai Kamaraj University Tamil Nadu	2018
3.	Fellowship	UGC -MANF	2018-2019
4.	Best presentation award	Periyar university Tamil Nadu	2018
5.	2 nd prize for presentation	Fatima College Tamil Nadu	2019
6.	Best presentation award	Mangalam Engineering college Kerala IEEE Photonic society	2021

Publications (List of papers published in SCI Journals, in year wise descending order).

1. **M.Ismail Fathima**, K.S Joseph Wilson., Substrate and DLARC Layers Selection for High Efficiency Solar Cell, International Journal of Nanoscience, 17(3) 1850012 (2018)
2. **M.Ismail Fathima**, K.S Joseph Wilson., Role of multilayer antireflective coating in ZnO based dye sensitized solar cell, Vacuum (Elsevier) 165, 58-61 (2019)
3. **M.Ismail Fathima**, K.S Joseph Wilson., Investigations on Structural and Optical parameters of ZnO Dye-sensitized solar Cell, IJSRR, 8(1)3378-3378 (2019)
4. **M.Ismail Fathima**, K.S Joseph Wilson., Antireflection coating application of zinc sulfide thin films by nebulizer spray pyrolysis technique, AIP Conference Proceedings 2115, 030327 (2019)
5. K.R.Acchutharaman **M.Ismail Fathima**, Dr.K.S. Joseph Wilson., Effect of platinum and graphite counter electrode in ZnO dye sensitized solar cell, AIP Conference Proceedings 2115, 030676, (2019)
6. **M.Ismail Fathima**,A.M.S arulanantham, K.S Joseph Wilson., Effect of ZnS nanowire ARC on CZTS/CdS thin film solar cell by Nebulizer Spray Pyrolysis Technique, Mater. Res. Express 7 015510, (2020)
7. **M.Ismail Fathima**, K.S Joseph Wilson., Efficiency enhancement of silicon solar cell using effective interface face method in antireflective coating layers, International Journal of Modern Physics C 31(5) (2020)

8. **M.Ismail Fathima**,A.M.S arulanantham, K.S Joseph Wilson., Cobalt doped ZnO films as antireflection coating application for solar cell AIP Proceeding, 2020
9. P. Arockia Michael Mercy, **M.Ismail Fathima**,K.S. Joseph Wilson, Analysis of reflectance of various DLARC systems in solar cells, AIPConference Proceedings,2265 030262 (1-2) **2020**
10. **M.Ismail Fathima**,K.S. Joseph Wilson, Investigation on the theory of 1D planar photonic crystal based CZTS/CdS solar cell Materials today proceeding xx 1-5 (**2021**)
11. Fowziya Shaik Ali, Faisal Ali,Marzouqi, A. Afroos Banu **M. Ismail Fathima**, A. R. Mohamed Jahangir, Novel synthesis of cerium oxide nano photocatalyst by a hydrothermal method, Journal of Semiconductors, 42, 128801,**2021**
12. **M.Ismail Fathima**,K.S. Joseph Wilson, Efficiency enhancement of dye sensitized solar cell Using 1D Photonic Crystal, Silicon -Springer 14 4283-4289 (**2022**)
13. M.Ismail Fathima,A.M.S arulanantham, K.S Joseph Wilson., Effect of SnO₂/ZnO DLARC Layer on SnS Chalcogenide based Thin-Film Solar Cell 57(4) 255-260 (**2022**)
14. M.Zaheetha banu, **M.Ismail Fathima**,.K.S. Joseph Wilson., Dielectric-Meta material Reflectors for Effective Absorption of Light in Solar Cells, International Journal of Nanoscience, 21(02),2250004 (**2022**)
15. *D.Nathiyaa,N.M.I Alhaji,A.R .Mohamed Jahangir,M.Ismail Fathima et.al* Synthesis and characterization of ZnGa₂O₄ composites and its photocatalytic properties for energy applications, Environmental Research 204.112073 (**2022**)
16. *Mohamed Anwar.s,Muruganatham,M.Ismail Fathima and A.Ayshamariam*, Photoelectrochemical Efficiency Applications of Antimony-doped Tin Oxide Thin Film by Thermal Evaporation, Asian Journal of chemistry 34(6) 1537-1542 (**2022**)
17. *R.senthil,G.V, Vijayaragavan,M.Ismail fathima et.al* Crystallization Kinetics and Characterization of Solution Grown of Leucine Phthalic Acid Single Crystals, Asian Journal of Chemistry, 34(4) 931-936 (**2022**).
18. A. Sudha, N.M.I. Alhaji, A. Ayeshamariam, **M. Ismail Fathima**, M. Sivabharathy,K. Kaviyarasu, Electrochemical performance of H⁺implantation intercalate withLiCo₃O₄ thin film and its applications 5 424-432 (**2022**)
19. S.R. M. Jony, S. Muruganantham , A. Ayeshamariam, **M. Ismail Fathima** and K. Kaviyarasu, Synthesis And Characterizations of Zno-Cdo Layers and Its Theoretical Applications of Solar Cells By Spin Coating Technique, Eur. Chem. Bull. **2023**,12(9),

257-268

20. J. Immaculate Sagayarani, S. Murugan, **M. Ismail Fathima**, N.N. Shafeera, K. Gokila, Ayeshamariam and K. Kaviyarasu, Optical Effect of Pure and Metal Doped SLARC on Silicon Solar Cell, Eur. Chem. Bull. **2023**, 12(Special issue 8), 5725-5740
21. G. Karthikaselvi, S. Sivaranjani, S.R. M. Jony, S. Muruganatham, N.N. Shafeera, A. Ayeshamariam and **M. Ismail Fathima**, Cyclic Voltametric studies of Mg₂SnO₄ nanoparticles and its Energy harvesting Applications, Eur. Chem. Bull. **2023**, 12(8), 1876-1890
22. **M. Ismail Fathima**, J.R. Sofia, and K.S. Joseph Wilson, experimental and Theoretical studies on improving efficiency of ZnO based Dye-sensitized solar cells using Single layer Anti-reflective Coating, Canadian Journal of Physics. **2023** 101(11)

Seminar/Conference Presentations:

1.	<i><u>National seminar cum workshop on Solar thermal and Photovoltaic Technique</u></i> Madurai Kamaraj university-Madurai (2017)
2.	<i><u>Interational conference on Advanced functional materials for energy and environment and biomedical Applications</u></i> Madurai Kamaraj university-Madurai (2017)
3.	<i><u>National conference on "Recent Trends In physics</u></i> Jayaraj Annapackiyam College women, Periykulam (2018)
4.	<i><u>2nd International Conference on Recet Trends in Applied Science & Technology (ICRTAST-2018)</u></i> , Periyar university, Salem
5.	<i><u>National conference on Energy material-2018</u></i> Manomanoium University, Tirunelveli (2018)
6.	<i><u>National seminar on material science and application-NSMSA-2018</u></i> , Mother Teresa university, Kodaikanal (2018)
7.	<i><u>International conference on Nanoscience and nano technology-ICONN 2019</u></i> , Srm University, Chennai (2019)
8.	<i><u>National conference on "RECENT TRENDS IN material science and its technological Applications</u></i> , Jayaraj Annapackiyam College women, Periykulam (2019)

9.	<i>Intercollegiate Research fest-“Sustainable Goals of India</i> , Fatima College ,Madurai(2019)
10	<i>New trends inresearch of energy materials and its applications</i> , P.A.college of Engineering and Technology -Pollachi,Coimbatore(2019)
11	<u>3rd International Conference on Recet Trends inApplied Science &Technology(ICRTAST-2019)</u> , SSN Institution -Chennai(2019)
12	<u>2nd International Conference on “Sustainable Materials and Technologies for Bio and Energy Applications SMTBEA-2022”</u> , SSN Institution -Chennai(2022)
13	<u>One day webinar on “The Use Of Graphene Today’s Electronics” Annai Violet Arts and Scicne college Chennai 2023</u>
<u>Seminar-Conference Presented -Other states</u>	
14	<u>National conference on Optics and Synchrotron Radiation for technological Application (OPSR-2018)</u> , RRCAT-INDORE -Madhyapradesh(2018)
15	<u>63rd DAE -SSPS-2018, Guru Jambheshwar University of Scienceand Technology, Hisar, Haryana.(2018)</u>
16	<u>64th DAE -SSPS-2019, IIT –Jodhpur, Rajasthan</u>
17	<u>IEEE Workshop on Recent Advances in Photonic 2019 IIT-Guwahati- Assam</u>

WORKSHOPS

18	Lecture workshop on Materials science and Engineering-Physics in Engineering (PiE-II), Thiagarajar college of engineering -Madurai- Tamilnadu (2018)
19	<i>Workshop On Career And Research Opportunites In Sustainable Enegy Sectors, Periyar university,Salem- Tamilnadu (2018)</i>
20	Workshop on Photovoltaic fundamentals,Device characterization,Simulation and emerging concepts, IIT-Madras- Tamilnadu(2018)
21	Workshop on “Advances in Optics and Photonics” UGC-Networking Resource Centreschool Of Physics University of Hyderabad-Telugana(2019)
22	National workshop onXRD and its Application, The Gandhigram rural institute -Deemed university ,Dindigul, Tamilnadu(2019)
23	Workshop on Teaching and learning of functional materials and devices through hands

	on experience (TLFMD-2020), <u>NIT--Telugana (2020)</u>
24	Seven Days Workshop under Strategic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI-2022) <u>University of Kerala (2022)</u>
	FACULTY DEVELOPMENT PROGRAMME -FDP
1	One-week Faculty Development Program on“Polymer Composites For Engineering Applications”(PCEA-2023), <u>B.M.S. College of Engineering,2023</u>

Reviewer

1. Reviewer in International of Journal Nano science- World Sciecntific
2. Reviewer in Journal of Optics

Research IDs and Link

Research Gate: <https://www.researchgate.net/profile/Mismail-Fathima>

ORCID: <https://orcid.org/0000-0003-1791-2092>

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