



J. R. SOFIA

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Languages Proficiency

Read : Tamil & English
Write : Tamil & English
Speak : Tamil & English

1. QUALIFICATION

S. No.	Degree / Diploma / Certificate	Discipline	Name of the Institution	Year of Passing
1.	UG	Physics	Fatima College, Madurai	2017
2.	PG	Physics	Thiagarajar College, Madurai	2019
3.	SET/NET	CSIR – NET (Lectureship) in Physics		2019

2. TEACHING EXPERIENCE / OTHER EXPERIENCE

S. No.	Institution / Organization	From - To
1.	Fatima College, Madurai	2021 – Till Date

3. ORIENTATION/REFRESHER/TRAINING PROGRAMMES/FDP ATTENDED

S. No.	Programme	Theme	Organized by	Date
1.	One Week National Level Online Faculty Development Program	Functional Materials	Department of Science and Humanities, T. J. S Engineering College, Chennai	May 22 - 26, 2023
2.	Five Days International Faculty Programme	Nanomaterials	Department of Physics, St. Mary's College (autonomous) Thoothukudi	Nov. 23 - 27, 2021
3.	Faculty Development Programme Through Online Mode	Design of Nanoelectronics and Nanophotonic Devices using Advanced Software Tools (DONEPAST – 2020)	Department of Electronics & Communication Engineering, GITA Autonomous College, Bhubaneswar, Odisha	May 10 - 22, 2021
4.	One-Week Faculty Development Workshop	Teaching and Learning of Functional Materials and Devices through Hands-on Experience (TLFMD-2020)	Department of Physics in Association with the Teaching Learning Centre, National Institute of Technology, Warangal, Telangana	Mar. 09 - 14, 2020

4. PAPER PRESENTED ON NATIONAL/INTERNATIONAL SEMINARS, WORKSHOPS, CONFERENCES & SYMPOSIUMS

S. No.	Programme & Theme	Organized by	Date	Title of the Paper
1.	International Conference on Advanced Materials and Computational Physics (ICAMP-2024)	Saveetha Institute of Medical and Technical Sciences (SIMATS), Chennai.	April 25 & 26, 2024	Analysis of Transmittance Properties of Semiconductor Metamaterial Photonic Crystal
2.	International Conference on “Recent Trends in Materials Science (RTMS – 2024)”	Department of Physics, Arul Anandar College (autonomous), Karumathur.	Mar. 01, 2024	Theoretical Analysis on Transmittance Properties of Superconductor based Photonic Crystal
3.	67 th DAE Solid State Physics Symposium	GITAM Deemed to be University, Vishakapatnam	Dec. 20 - 24, 2023	Theoretical Analysis on Graphene-MgF ₂ Nanocomposite based One-dimensional Photonic Crystal
4.	One Day National Seminar on Advanced Materials & Its Applications in Science and Technology	B. K. Birla College (autonomous), Kalyan	Sep. 30, 2023	Theoretical Studies on Perovskite solar Cell based Photo-Supercapacitor using multi-branch model of Supercapacitors
5.	Two Day International Conference on “Recent Trends in Materials Science (RTMS – 2023)”	Department of Physics, Arul Anandar College (autonomous), Karumathur.	Mar. 09 & 10, 2023	Theoretical analysis on transmission spectra on Double Negative Metamaterial & Ag-Dielectric Nanocomposite based One-Dimensional Photonic Crystal
6.	2 nd International Conference on “Sustainable Materials and Technologies for Bio and Energy Applications (SMTBEA-2022)”	SSN Institutions, Kalavakkam, Chennai in Association with Elavenil Science Association & Indian Science and Technology Association	July 13 - 15, 2022	Optical Properties of Double Negative Metamaterial One-Dimensional Photonic crystal
7.	8 th International Conference on “Advances in Energy Research (ICAER 2022) through Online Mode	Indian Institute of Technology, Bombay.	July 07 - 09, 2022	Enhancement of the Performance of Dye-Sensitized Solar Cell by Integrating with Ternary Photonic crystal

5. PARTICIPATED ON NATIONAL/INTERNATIONAL SEMINARS, WORKSHOPS, CONFERENCES & SYMPOSIUMS

S. No.	Programme & Theme	Organized by	Date
1.	Webinar on “Advanced Lithographic Techniques for Micro & Nano Fabrication Systems” through online mode	Aaivaler Materials Society (AMatS), Aaivalayam, Coimbatore.	May 05, 2021
2.	Workshop on “Emerging Trends in Energy Harvesting and Energy Storage Techniques”	Mepco Schlenk Engineering College, Sivakasi.	Jan. 03 & 04, 2020.

S. No.	Programme & Theme	Organized by	Date
3.	International Conference on “Recent Trends in Mathematical and Physical Modelling and Bioresource Management Strategies”	Thiagarajar College, Madurai.	Feb. 12 & 13, 2019.

6. ARTICLES PUBLISHED IN JOURNALS/PROCEEDINGS/MAGAZINES/BOOKS

S. No.	Journal/Proceeding/Magazine/Book Name	Title of the Article	Month/Year	Vol. No.	Issue No.	Page No.	ISSN	Publisher
1.	Optik – International Journal for Light and Electron Optics	Electrical Circuit Modeling of Photo-Supercapacitor using Zubieta Bonert Model	December, 2021	251		168448	ISSN 0030-4026	ELSEVIER
2.	Advances in Clean Energy and Sustainability, Green Energy and Technology	Enhancement of the Performance of Dye-Sensitized Solar Cell by Integrating with Ternary Photonic Crystal	MaY, 2023			737-748	ISSN 1865-3529, ISSN 1865-3537 (electronic)	SPRINGER
3.	Canadian Journal of Physics	Experimental and Theoretical Studies on improving the Efficiency of ZnO-based Dye-Sensitized Solar Cells using single-Layer Anti-Reflective Coating	November, 2023	102	3	191-198	ISSN 0008-4204 ISSN 1208-6045 (Online)	Canadian Science Publishing
4.	Optik – International Journal for Light and Electron Optics	Investigation on Short-Circuit Current Density (Jsc) in the Dye-Sensitized Solar Cells by Optimizing Photoelectrode Thickness	October, 2023	290		171287	ISSN 0030-4026	ELSEVIER
5.	Optical Materials	Theoretical Analysis on One-dimensional Metamaterial Nanocomposite Photonic Crystal	March, 2024	149		114951	ISSN 1873-1252, ISSN 0925-3467 (Online)	ELSEVIER
6.	Applied Solar Energy	Investigations on Integration of CdS/CdTe Thin Film Solar Cell with Supercapacitor	July, 2024	60		215 - 225	ISSN 0003-701X, ISSN 1934-9424 (Electronic)	SPRINGER
7.	Applied Physics A	Efficiency Enhancement of	December,	130		955	ISSN 0947-	SPRINGER

S. No.	Journal/Proceeding/Magazine/Book Name	Title of the Article	Month/Year	Vol. No.	Issue No.	Page No.	ISSN	Publisher
		Dye-Sensitized Solar Cells using Nanocomposite Based One-Dimensional Ternary Photonic Crystal	2024				8396 ISSN 1432-0630 (Electronic)	