

RESUME

Dr.S.SIVARANJANI,M.Sc.,Ph.D.,

E-mail: ssranjani@gmail.com

Mobile: +91-9789573440

Specialisation: Thin Film Physics & Nano Technology



EDUCATIONAL QUALIFICATION:

Category	Name of the Degree	Specialization	Year of Passing	Name of the College/School	Name of the University/Board	% of Marks / Grades obtained	Class obtained
Ph.D.	Ph.D	THIN FILM PHYSICS	2012		BHARATHIDASAN UNIVERSITY, TRICHY		AWARDED
Diploma	P.G.D.C.A		2005	G.T.N Arts and Science College, Dindigul	MKU, MADURAI	65%	FIRST
PG	M.Sc	PHYSICS	2005	LADY DOAK College, Madurai	MKU, MADURAI	59%	SECOND
UG	B.Sc	PHYSICS	2002	G.T.N Arts and Science College, Dindigul	MKU, MADURAI	70%	FIRST
HSC			1999	St.Joseph's Girls Higher Secondary School, Dindigul	State Board	63%	FIRST
SSLC			1997	St.Joseph's Girls Higher Secondary School, Dindigul	State Board	74%	FIRST

RESEARCH EXPERIENCE:

- ✓ Technical Assistant under DAE-BRNS Project in Department of Physics, Alagappa University, Karaikudi from July-2006 to July-2008.
- ✓ Project Fellow under UGC-DAE CSR Project in Department of Physics, Alagappa University, Karaikudi from August-2008 to March-2009.

HANDS-ON EXPERIENCE IN OPERATING SOPHISTICATED INSTRUMENTS:

- Sputtering (HindHivac-Planar Magnetron RF/DC Sputtering) Unit.
- Stylus Profilometer (Mitutoyo SJ-301).
- XRD Unit (X'pert PRO PANalytical),
- UV-Vis-NIR (HR-2000, M/S Ocean Optics, USA) spectrophotometer.

Title of Ph.D. Thesis : STUDIES ON POROUS SILICON BASED OXIDE SOLAR CELLS

Guideship : Approved Research Supervisor (Part - Time Ph.D. Category - B) in Bharathiar University, Coimbatore - 641 046.

No. of Students Guided : Two Students Completed Ph.D.

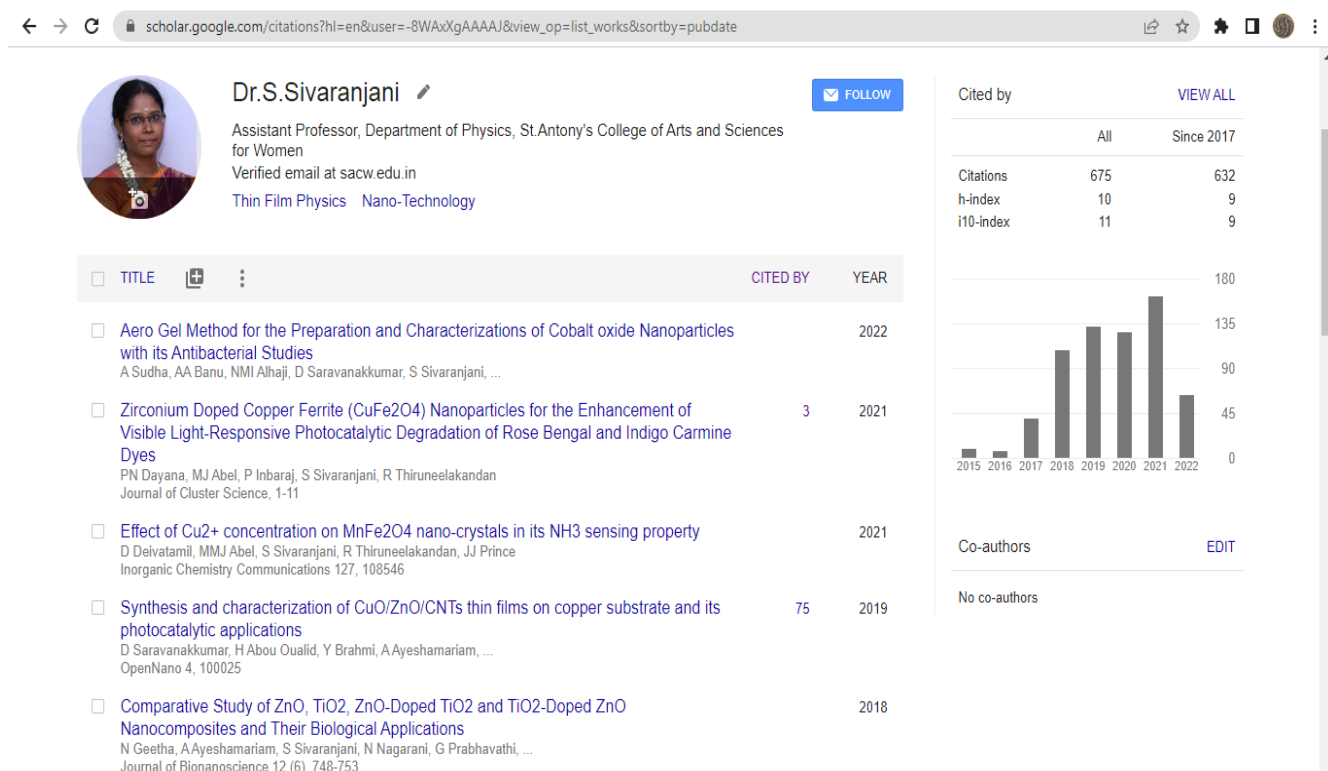
Academic Experience as on AUGUST 2022:

Name of the College	Designation	Joining Date	Relieving Date	Experience		
				Years	Months	Days
SBM COLLEGE OF ENGINEERING AND TECHNOLOGY, DINDIGUL	ASSOCIATE PROFESSOR	03/09/2012	28/08/2019	6	11	25
St.ANTONY'S COLLEGE OF ARTS AND SCIENCES FOR WOMEN, DINDIGUL	ASSISTANT PROFESSOR	03/09/2019	TILL DATE	2	11	-
TOTAL TEACHING EXPERIENCE				9	10	25

ADDITIONAL PORT FOLIOS @ St.Antony's College of Arts and Sciences for Women:

- ✓ **Student Council Co-ordinator.**
- ✓ **Anto-Stephen Hawking Science Club Co-ordinator under VIPNET Club ID-TN0144.**
- ✓ **Ministry of Education Certified Innovation Ambassador.**
- ✓ **Acted as Resource Person in various seminars.**

Papers Published:



Sl. No	Author Name	Title of The Paper	Name of The Journal	Volume	Page Nos	Year
1.	A. Sudha, A. Afroos Banu, N. M. I. Alhaji, D. Saravanakkumar and S. Sivaranjani and A. Ayeshamariam	Aero Gel Method for the Preparation and Characterizations of Cobalt oxide Nanoparticles with its Antibacterial Studies	Research Journal of Agricultural Sciences An International Journal	13	322-328	2022

2.	P. Nancy Dayana, M. John Abel, P. Fermi Hilbert Inbaraj, S. Sivaranjani , R. Thiruneelakandan, J. Joseph Prince	Zirconium Doped Copper Ferrite (CuFe ₂ O ₄) Nanoparticles for the Enhancement of Visible Light-Responsive Photocatalytic Degradation of Rose Bengal and Indigo Carmine Dyes	Journal of Cluster Science	32	7	2021
3.	D. Deivatamil, M. John Abel, S. Sivaranjani , Raghavan Thiruneelakandan, J. Joseph Prince	Effect of Cu ²⁺ concentration on MnFe ₂ O ₄ nanocrystals in its NH ₃ Sensing property	Inorganic Chemistry Communications	127	1085 46	2020
4.	D. Saravanakkumar, Hicham Abou Oualid, Younes Brahmia, A. Ayeshamariam M. Karunanaithy, A. Mohamed Saleem, K. Kaviyarasu, S. Sivaranjani , Jayachandran.	Synthesis and characterization of CuO/ZnO/CNTs thin films on copper substrate and its photocatalytic applications.	Open Nano (ELSEVIER)	4	1-16	2019
5.	N. Geetha., S. Sivaranjani , A. Ayeshamariam M. Siva Bharathy, S. Nivetha, K. Kaviyarasu and M. Jayachandran	High Performance Photo-Catalyst Based on Nanosized ZnO-TiO ₂ Nanoplatelets for Removal of RhB Under Visible Light Irradiation	Journal of Advanced Microscopy Research	13	1-8	2018
6.	N. Geetha., S. Sivaranjani , A. Ayeshamariam M. Kavin Micheal, D. Saravanakkumar, S. A. Fowziya, A. M. Uduman Mohideen and M. Jayachandran	ZnO/TiO ₂ Nanocomposites Semiconductor for Bacterial Applications and Dye-Sensitized Solar Cell Solar	Journal of Advanced Microscopy Research	13	1-9	2018

		Applications				
7.	N.Geetha,, A. Ayeshamariam S. Sivaranjani , N.Nagarani, G.Prabhavathi, M.P.Srinivasan, N.Punithavelan, Horacio Perez-Sanchez and M. Jayachandran	Comparative Study of ZnO.Tio ₂ , ZnO- Doped TiO ₂ and TiO ₂ - Doped ZnO Nanocomposites and Their Biological Applications	Journal of Bionanoscience	12	1-6	2018
8.	D. Saravanakkumar, S. Sivaranjani , K. Kaviyarasu, A. Ayeshamariam, B. Ravikumar, S. Pandiarajan, C. Veeralakshmi, M. Jayachandran, and M. Maaza	Synthesis and characterization of ZnO–CuO nanocomposites powder by modified perfume spray pyrolysis method and its antimicrobial investigation	Journal of Semiconductors	39	3	2018
9.	D. Saravanakkumar, S.Uma Devi, S. Sivaranjani , S.Ganasaravanan A. Ayeshamariam, B. Ravikumar, S. Pandiarajan,	Structural Investigation on Synthesized Ag Doped ZnO- MWCNT and Its Applications	Journal of Nanoscience, Nanoengineering & Applications	8	49-59	2018
10.	D. Saravanakkumar, R.Karthika, S.Ganasaravanan, S. Sivaranjani , S.Pandiarajan, B.Ravikumar, A. Ayeshamariam	Synthesis of NiO Doped ZnO/Mwent Nanocomposite and Is Characterization for Photocatalytic & Anti Microbial Applications	IOSR Journal of Applied Physics	10	73-83	2018
11.	Saravanakkumar D, Sivaranjani S , Ayeshamariam A, Ravikumar B, Pandiarajan S,	Perfume Spray Analysis of Sn Doped ZnO- CNT NPs and its Morphological Characterizations	Journal of Powder Metallurgy & Mining	6	1-4	2017
12.	K. Kaviyarasu , N. Geetha , K. Kanimozhi, C. Maria Magdalane, , S. Sivaranjani , A. Ayeshamariam, J.	In vitro cytotoxicity effect and antibacterial performance of human lung epithelial	Materials Science & Engineering C	74	325- 333	2017

	Kennedy, M. Maaza	cells A549 activity of Zinc oxide doped TiO ₂ nanocrystals: Investigation of bio-medical application by chemical method				
13.	Ayeshamariam.A, D.Saravanakkumar, M. Kashif, S. Sivaranjani and B. Ravikumar	Analysis on the effect of ZnO on Carbon nanotube by spray pyrolysis method	Mechanics of Advanced Materials and Modern Processes	2:3	1-8	2016
14.	N. Geetha, S. Sivaranjani , A. Ayeshamariam, J. Suthan Kissinger, Mariadhas Valan Arasu and M. Jayachandran	ZnO doped Oxide Materials: Mini Review	Fluid Mechanics: Open Access	3	1-6	2016
15.	D.Saravanakkumar, S.Sivaranjani , S.Karthi, S.Pandiarajan, B.Ravikumar	Synthesis and Antibacterial Investigation of ZnO/CNPs Nanocomposite Powder by Hot Nickel Plate Assisted Cost Effective Spray Pyrolysis Method and its Characterizations	IOSR Journal of Applied Physics (IOSR-JAP)	8	16-22	2016
16.	D.Saravanakkumar, S.Sivaranjani , M.Umamahswari, S.Pandiarajan, A.Ayeshamariam	Green Synthesis of ZnO Nanoparticles using Trachyspermum ammi Seed Extract for Antibacterial Investigation	Der Pharma Chemica (SCImago Journal &Country Rank)	8	173-180	2016
17.	D.Saravanakkumar, S.Sivaranjani , T.Velammal, S.Pandiarajan, A.Ayeshamariam	Hot Copper Plate Assisted Synthesis of ZnO Nanoflakes by Cost Effective Modified Spray Pyrolysis Method and its Structural, Morphological &	International Journal of Science and Research	5	620-623	2016

		Optical Studies				
18.	P.Ponsurya, B.H.Abbas Shahul Hameed, D.Saravanakkumar, M.Kashif, S.Sivaranjani , R.Perumalsamy, A.Ayeshamariam	Studies on CNT, ZnO-CNT and undoped ZnO and their gas sensor results	International Journal of ChemTech Research (SCImago Journal &Country Rank)	7, No.2	917-920	2014-2015
19.	D.Saravanakkumar, M. Kashif, V.Rethinasami, B.Ravikumar, S.Pandiarajan, A.Ayeshamariam, S.Sivaranjani , M.Bououdina, S.Ramalingam	Synthesis and Characterization of Zinc Selenide (ZnSe) Thin Films Electrodeposited on ITO and SnO ₂ Substrates	Journal of Ovonic Research (SCImago Journal &Country Rank)	10	175 - 184	2014
20.	A.Ayeshamariam, M.Kashif, S.Muthuraja, S.Sivaranjani , C.Sanjeeviraja, M.Bououdina	Synthesis and Characterization of In ₂ O ₃ Nanoparticles	Journal of the Korean Physical Society (Springer-IJ)	64	254-262	2014
21.	A.Ayeshamariam, V.S.Vidhya, S.Sivaranjani , M.Bououdina, R.PerumalSamy, M.Jayachandran	Synthesis and Characterization of SnO ₂ Nanoparticle	Journal of Nanoelectronics and Optoelectronics (American Scientific Publishers-IJ)	8	1-8	2013
22.	S.Sivaranjani , V.Malathy, V.Swaminathan, J.Joseph Prince, T.Balasubramanian, C.Sanjeeviraja, M.Jayachandran	Thickness dependence of structural, electrical and optical properties of sputter deposited indium tin oxide films	Advanced Science Letters (American Scientific Publishers-IJ)	3	1-8	2010
23.	V.Malathy, S.Sivaranjani , V.S.Vidhya, J.Joseph Prince, T.Balasubramanian, C.Sanjeeviraja, M.Jayachandran.	Role of substrate temperature on the structural, optoelectronic and morphological properties of (400) oriented indium tin	Journal of Materials Science: Materials in Electronics (Springer-IJ)	21	1299-1307	2010

		oxide thin films deposited using rf sputtering technique				
24.	V.Malathy, S.Sivaranjani , V.S.Vidhya, J.Joseph Prince, T.Balasubramanian, C.Sanjeeviraja, M.Jayachandran	Amorphous to crystalline transition and optoelectronic properties of nanocrystalline indium tin oxide (ITO) films sputtered with high rf power at room temperature	Journal of non-crystalline solids (Elsevier-IJ)	355	1508-1516	2009

Book Chapter Edited:

- **Book Name- Emerging Research in Engineering and Management published by ANVI BOOKS & PUBLISHERS DELHI-110053 (INDIA)**

ISBN : 978-93-90856-12-1

“Investigation of Avocado Extract as Reducing Agent in TiO₂ Doped with Ag₂O and Cu₂O Nanoparticles for Antimicrobial Applications”

G. Selvan, D. Saravanakkumar, S. Sivaranjani, A. Ayeshamariam, K. Kaviyarasu and M. Jayachandran.

Online Exam Completed

1. “Solid State Physics with ELITE” – NPTEL Course-2018
2. “Physics of Silicon Solar Cells”- Coursera Course-2021
3. “Introduction to Classical Mechanics”-NPTEL Course-2021

Conferences:

- **Papers Presented in International Conferences:15**
- **Papers Presented in National Conference : 08**

Seminar and Webinar/Workshop/FDP:

- **Number of Seminar and Webinar attended:17**
- **Number of Workshop attended:09**
- **Number of FDP Attended:10**

Google Scholar Link: <https://scholar.google.com/citations?user=-8WaxXgAAAAJ&hl=en>

Research Gate Link: <https://www.researchgate.net/>

Publons Link: <https://publons.com/researcher/1355021/sivaranjanis/>

Yours faithfully,

S. Sivaranjani

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