Name: Dr. A. SATHIYA PRIYA	Photo				
Designation:	Associate Professor				
Qualification:	M.Sc., M.Phil., Ph.D., Post-Doc (PR China)				
Area of specialization:	Multiferroic, 2D materials, Solar cells, Photo-catalytic activity Energy Harvesting, Nanogenerator.				
Experience:	Industrial Experience		Teaching Experience		
	Post Doctoral Fellow (PDF)- 2 years		8 years 10 months		
Number of workshops	Number of Workshops		Number of FDPs		
/ FDP attended:	3		11		
Publications:	Cor	Conference		Journal	
	National	International	National	International	
	4	12	-	30	
Books / Book Chapters	Book-1; Book chapter-1				
Patents:	National -		International		
			-		
Professional Body Membership	IEEE				
Research Guidance	Yes – (Full time Research scholar-1)				
	(4170069- Anna University Guideship)				

International Centre for Diffraction Data (**ICDD**) has approved and certified the XRD PATTERNS of (La, Cu) co-doped BiFeO3 materials reported by me. They were added in ICDD files

**Staff Achievements** 

(Powder Diffraction File -2020). File number: 690371, 690372, 690373.

Categor y	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.,	Physics	2009	Sri Paramakalyani College	M S University	71	First
D.C.	M.Sc.,	Physics	2011	Sri Paramakalyani College	M S University	73.18	First
PG	M.Phil.	Physics	2012	Ayya Nadar Janaki Ammal College	M K University	7.2 (CGPA)	First
Researc h	Ph.D	Physics	2018	B S Abdur Rahman Crescent Institute of Science and Technology	B S Abdur Rahman Crescent Institute of Science and Technology Chennai	NA	Ph.D

# **Educational Qualifications:**

# **Academic Experience:**

N. CH. CH	Designation	Joining Date	Relieving Date	Experience		
Name of the College				Years	Months	Days
B S Abdur Rahman Crescent Institute of Science and Technology	Research Fellow	13.01.2013	17.06.2014	1	5	4
Madras Institute of Technology, Chennai	Teaching Fellow	18.06.2014	30.04.2019	4	10	12
Hubei University	PDF	01.07.2019	30.06.2021	2	0	0
Sri Sairam Engineering College	Assistant Professor	10.08.2022	31. 07.2024	1	11	21
	Associate Professor	01.08.2024	Till date	0	4	17
				10	7	24

### **Journal Publications:**

• A. Sathiya Priya, Muhammad Idzdihar Idris, J. Henry, R. Indhumathi, Radhamanohar Aepuru, Advancements in Hybrid Energy Harvesting: Combining Triboelectric Nanogenerators and Photovoltaic Cells for Next-Generation Energy Solutions, Mater. Today Energy, Accepted. (Q1; SCIE) (Impact factor (IF)-9.0)

- A. Sathiya Priya, R. Premanand, Indhumathi Ragupathi, Vijayabhaskara Rao Bhaviripudi, Radhamanohar Aepuru, Karthik Kannan, Krishnamoorthy Shanmugaraj, Comprehensive Review of Hydrogel Synthesis, Characterization, and Emerging Applications, J. Compos. Sci., 8, 457 (2024). (Q2; SCIE) (IF-3)
- Naresh Raj K, Vidhya Lakshmi Sivakumar, Pamila Ramesh, **Sathiya Priya A**, Anand Raju, Towards Sustainable Development: Harnessing the Role of Trees for Environmental Conservation and Economic Growth, Nanotechnology Perceptions 20, 139–153 (2024). (Q4; SCOPUS) (IF-0.6)
- A. Sathiya Priya, J.Henry, Radhamanohar Aepuru, K. V.Arivizhivendhan, S Manda Advancements in Carbon Dot Production and Characterization for Food Packaging: A Comprehensive Review, *Brazilian J Phys.* 54, 139 (2024). (Q4; SCIE) (IF-1.5)
- A. Sathiya Priya, D.Geetha, D P Pabba, R Aepuru, Ştefan Ţălu, Varalakshmi, Prominent ferroelectric properties in multi-layered TiO<sub>2</sub> Mn-doped BiFeO<sub>3</sub> spin- coated thin films, Ferroelectrics, 618, 957-969 (2024). (Q4; SCIE) (IF-1.3)
- A. Sathiya Priya, D.Geetha, Jesus M Siqueiros, Ştefan Ţălu, Tunable optical and multiferroic properties of zirconium and dysprosium substituted bismuth ferrite thin films, *Molecules*, 27, 7565, (2022). (Q2;SCIE) (IF-4.2)
- I B Shameem Banu, Rajesh Raman, M Hafiz Mamat, P Komalavalli, B H Poornima, S Divyalakshmi, S Sathik Basha, A Sathiya Priya, Shamima Hussain, Strain-mediated electrical and optical properties of novel lead-free CuFe<sub>2</sub>O<sub>4</sub>–KNbO<sub>3</sub> nanocomposite solid solutions: A combined experimental and Density Functional Theory studies, *Microsc. Res. Tech.*, 85, 3140-3152, (2022). (Q2; SCIE) (IF-2)
- A. Sathiya Priya, D.Geetha, Structural and frequency dependent dielectric properties of Ba doped Ni-Zn ferrite powders, *Phosphorous, Sulfur Silicon Relat Elems.* 197, 186-191, (2022). (O3;SCIE) (IF-1.4)
- A. Sathiya Priya, D.Geetha, J.Henry, Effect of Cu and Sm doping on the ferroelectric character of bismuth ferrite thin films, *Phosphorous, Sulfur Silicon Relat Elems*. 197, 158-163, (2022). (Q4;SCIE) (IF-1.4)
- **A. Sathiya Priya,** D.Geetha, Madhavan, Synthesis, structural, dielectric, and photocatalytic properties of (Ti, La) co-doped calcium ferrite ceramic powders, *Arab. J. Sci. Eng.*, 47, 7657-7667, (2022). **(Q1; SCIE) (IF-3.43)**
- A. Sathiya Priya, D. Geetha, I.B.Shameem Banu, "Structural, dielectric and impedance analysis of (Dy, Cu) co-doped BiFeO<sub>3</sub>" *Brazilian J Phys. 51, 14338-1447, (2021).* (Q4;SCIE) (IF-1.5)
- Ştefan Ţălu, **A. Sathiya Priya**, D.Geetha, Topographic characterization of of (Zr, Mn) co-doped bismuth ferrite thin film surfaces, *Microsc. Res. Tech, 84 (10), 2494-2500 (2021).* (Q3;SCIE) (IF-2)
- A. Sathiya Priya, D. Geetha, Studies on the multiferroic properties and impedance analysis of BiFeO<sub>3</sub> by (La, Cu) prepared by sol-gel method, *Ferroelectrics*, 573, 104-116 (2021).(Q4; SCIE) (IF-1.3)
- A. Sathiya Priya, D. Geetha, Impact of (Zr, Cu) ions substitution on the optical, dielectric and impedance behavior of BiFeO<sub>3</sub>, *Brazilian J phys. 51, 175-181 (2020)*. (Q4;SCIE) (IF-1.5)
- A. Sathiya Priya, D.Geetha, Ştefan Ţălu, Advanced micromorphology study of the Mn-doped
  - bismuth ferrite thin films, *Mater. Lett.*, 281, 128615 (2020). (Q2;SCIE) (IF-3.02)
- M. Rajamoorthy, D. Geetha, A. Sathiya Priya, "Synthesis of cobalt doped Bi12NiO19: structural, morphological, dielectric and magnetic properties", *Arab. J. Sci. Eng.*, 46, 737-744,(2020).(Q1; SCIE) (IF-3.43)
- Jian Chen, A. Sathiya Priya, Di You, Weijie Pei, Qingfeng Zhang, Yinmei Lu, Mingkai li, Jinming Guo, Yunbin He, "Self-driven ultraviolet photodetectors based on ferroelectric depolarization field and interfacial potential", Sens. Actuators, A: Physical, 315, 112267, (2020).

- (Q1; SCIE) (IF-4.1)
- A. Sathiya Priya, D. Geetha, K.Karthik, M.Rajamoorthy, "Investigations on the enhanced photocatalytic activity of (Ag, La) substituted nickel cobaltite spinels", *Solid State Sci.*, 98, 105992 (2019). (Q2;SCIE) (IF-3.4)
- A. Sathiya Priya, I. B. Shameem Banu, D. Geetha, S. Sankar, "Investigations of the magnetic and dielectric behavior of (Zr, Cu) co-doped BiFeO<sub>3</sub>-BaTiO<sub>3</sub> composite", *Mater. Res. Express*, 6, 106116 (2019). (Q2; SCIE) (IF-1.8)
- A. Sathiya Priya, D. Geetha and N. Kavitha, "Effect of Al substitution on the structural, electric and impedance behavior of cobalt ferrite", *Vacuum*, 160, 453-460 (2019). (Q2;SCIE) (IF-3.8)
- A. Sathiya Priya, D. Geetha and N. Kavitha, "Evaluation of the structural and dielectric properties of Al, Ce co-doped Cobalt ferrites", *Mater. Research express*, 5, 066109 (2018). (Q2;SCIE) (IF-1.8)
- A. Sathiya Priya, I. B. Shameem Banu and Zulaikha Mohammed "Effect of novel (Gd, Cu) substitution on the electrical properties and magnetoelectric coupling bismuth ferrite ceramics", *J. Mater. Sci: Mater. Electr.*, 28, 8467-8472 (2017). (Q2;SCIE) (IF-2.8)
- A. Sathiya Priya, I. B. Shameem Banu, Shahid Anwar and Shamima Hussain, "Studies on the multiferroic properties of (Zr, Cu) co-doped BiFeO<sub>3</sub> prepared by sol- gel method", *J Sol-Gel Sci Technol.*, 80, 579-586, (2016). (Q2; SCIE) (IF-2.3)
- A. Sathiya Priya, I. B. Shameem Banu and Shahid Anwar, "Influence of Dy, Cu doping on the room temperature multiferroic properties of BiFeO<sub>3</sub>", *J Magn. Magn. Mater.* 401, 333-338 (2016). (Q3; SCIE) (IF-2.5)
- A. Sathiya Priya, I. B. Shameem Banu and Murthy Chavali, "Influence of (La, Cu) doping on the room temperature multiferroic properties of BiFeO<sub>3</sub> ceramics", *Arab. J. Sci. Eng.*, 40, 2079-2084 (2015).(Q1; SCIE) (IF-3.43)
- A. Sathiya Priya, I. B. Shameem Banu and Shahid Anwar, "Investigation of multiferroic properties of doped BiFeO<sub>3</sub>- BaTiO<sub>3</sub> composite ceramics", *Mater. Lett.* 142, 42-44 (2015). (O2;SCIE) (IF-2.7)
- I. B. Shameem Banu, **A. Sathiya Priya**, P. Komalavalli, and Shanmuganathan, "Investigation of Structural and magnetic properties of doped BaFeO<sub>3</sub>- BaTiO<sub>3</sub> multiferroic composites", *J. Materials sci. Mater. Electron.* 26, 98-102 (2014). (Q2;SCIE) (IF-2.8)
- **A. Sathiya Priya,** I. B. Shameem Banu, "Effect of doping and annealing on the room temperature magnetic and dielectric properties of La modified BiFeO<sub>3</sub> multiferroic nanoparticles synthesized by sol-gel citrate combustion method", *Chemtech*, 6 (11), 4643-4649 (2014).
- A. Sathiya Priya, I. B. Shameem Banu, J. Thirumalai, A. Alagar, "Optical characterization of Mn doped CdS nanoparticles synthesized by simple chemical route", *Opt. Electron. Adv. Mater. Rapid Comm.*, 7 (3-4), 191 195(2013). (Q4; Scopus) (IF-0.5)

## **Program Organized**

- **A.Sathiya Priya (Convenor)**, SERB sponsored 2<sup>nd</sup> 2 days International Hybrid mode conference on challenges & New trends in Solar cell technology (ICSCT'24), Sri Sai Ram Engineering College, 21<sup>st</sup> & 22<sup>nd</sup> March 2024.
- **A.Sathiya Priya (Convenor)**, One day National level Internship Program to Explore New Research Insights, Sri Sai Ram Engineering College, 24<sup>th</sup> August 2023.
- **A.Sathiya Priya (Convenor), SERB sponsored 2** days International Hybrid mode conference on challenges & New trends in Solar cell technology (ICSCT'23), Sri Sai Ram Engineering College, 8<sup>th</sup> January to 9<sup>th</sup> June 2023.
- **A.Sathiya Priya (Convenor)**, 5 days Academic Guest Lecture and Faculty interaction program on higher Studies Planning and International Research Collaboration, Sri Sai Ram Engineering College, 30<sup>th</sup> January to 3<sup>rd</sup> February 2023.
- **A.Sathiya Priya (Convenor),** Invited talk by international research collaborators, Sri Sai Ram Engineering College, 26<sup>th</sup> September 2022.

#### **Books / Book Chapters:**

- R Aepuru, M Aleksandrova, V M Gaikwad, **A Sathiya Priya**, P K Sahoo, Krishnamoorthy Shanmugaraj and R V Mangalaraja, An introduction to the role of materials in the energy–environment nexus (Materials Technology for the Energy and Environmental Nexus, Volume 2), IOP Science (2023).
- A Sathiya Priya, N. Srinivasan, Principles of Electronics, Publisher: Sri Sairam Engineering College, ISSN: 9789334021622, April 2024.

  Awarding Body: Founder's Day at Sri Sairam Engineering College Date: April 2024

### **Resource Person:**

- **A.Sathiya Priya,** research opportunities for blooming young minds, sathyabama institute of science and technology, Chennai, 5<sup>th</sup> jan 2024.
- **A.Sathiya Priya,** Energy conservation, National energy conservation day by bureau of energy efficiency, Annai Violet arts & Science College, 20<sup>th</sup> Dec 2023.
- **A.Sathiya Priya,** Bio-solar cell: current scenario and future Trends", Virtuthunagar District Cluster of Colleges Joint Faculty Program in Physics, A. K. D. Dharamaraja Women's College, 7<sup>th</sup> October 2023.
- **A.Sathiya Priya,** Perovskite solar cell, Research Internship Training Program (RITP), Sri Sai Ram Engineering College, 23<sup>rd</sup> December 2022.
- A.Sathiya Priya, "Ferroelectric multilayer films based high efficiency, low cost solar cell fabrication", International conference on novel materials for evolving technological applications (ICNM-2020) by Holy Cross College, Nagercoil, 2020.

### Workshops/Seminars attended:

- Participated one day workshop on "Synthesis of Nano materials using electrochemical methods, characterization and applications", Sri Sairam Engineering College, Chennai during 26<sup>th</sup> July 2024.
- Participated one day seminar on "Trends and Advances in Renewable Energy with Focus on Solar Thermal", CSIR-CSMCRI- Marine Algal Research Station & Process Design and Engineering Division, Ramanathapuram during 19<sup>th</sup> June 2024.
- Attended two days International level workshop on "IWAM 2014" AlagappaUniversity, Karaikudi.

#### **FDP/STTP Attended:**

- Completed a 8-weeks course on Solar Photovoltaics Fundamentals, Technology and Applications NPTEL-AICTE, Jul-Sep 2024.
- Participated 6 days faculty development program on "Recent Advances, Trends and Challenges in Nanomaterials Characterization and Techniques (RCNMCT-2024), Department of Physics, Koneru Lakshmaiah Education Foundation, Guntur, Andhra Pradesh during 9<sup>th</sup> -14<sup>th</sup> September 2024.
- Participated 2 weeks online faculty development programme on "Frontiers in Materials Research, Innovations and Entrepreneurship", Department of Humanities and Sciences, Sri Sairam Engineering College, Chennai during 25<sup>th</sup> July 8<sup>th</sup> Augest 2024.
- Completed a 6 days online short term programme on Functional Materials and Devices, IITDM Chennai, July1-6, 2024.
- Completed a 12-weeks course on Material Characterization, NPTEL-AICTE, Jan-Apr 2024.
- Participated 7 days online faculty development programme on "Sustainable Energy Spectrum: Exploring Trends and applications in Renewable Resources", Department of Mechanical Engineering, Army Institute of Technology, Pune during 14<sup>th</sup> May 20<sup>th</sup> May 2024.
- Participated 7 days virtual faculty development programme on "Recent Advances in Chemical Sciences", Department of Chemistry, K S R College of Arts and Science for Women, Tiruchegode during 27<sup>th</sup> Nov – 1<sup>st</sup> Dec 2023.
- Participated 7 days National level online faculty development programme on "Advanced Research Methodology in Physical Sciences, Department of Physics &IQAC, Rajapalayam Raju's College,

- Rajapalayam during 3<sup>rd</sup> -09<sup>th</sup> October 2023.
- Participated 5 days faculty development program on "Recent Advances, Trends and Challenges in Nanomaterials Characterization and Techniques (RCNMCT-2023), Department of Physics, Koneru Lakshmaiah Education Foundation, Guntur, Andhra Pradesh during 25<sup>th</sup> -29<sup>th</sup> September 2023.
- Participated 5 days online faculty development programme on Current Scenario in Advanced Materials Research and Nanotechnology, Department of Physics &IQAC, Rajapalayam Raju's College, Rajapalayam during 14<sup>th</sup> -18<sup>th</sup> November 2022.
- Participated two weeks (40 hours) online faculty development programme on MATLAB programming, Electronics and ICT Academies at MNIT Jaipur, NIT Patna, and PDPM IIITDM Jabalpur during August 22-September 02, 2022 (recognized by AICTE/UGC).

#### **Conference Attended:**

- Attended one day special lecture on Trends and Advances in Renewable Energy with Focus on Solar Thermal", CSIR-CSMCRI-Marine Algal Research Station & Process Design and Engineering Division, Chennai (19<sup>th</sup> June 2024)
- Attended one day international conference on Functional Nanomaterials and Nanodevices (ICFNN 2023), Chettinad Academy of Research and Education, Chennai (26<sup>th</sup> Sep 2023).
- Attended two-day national level conference on "NCAMA 2013" at National Institute of Technology, Trichy

### **Completed / Ongoing Projects:**

- Collaborative Research Project, University of Chile, Chile
- Collaborative Research Project, Metropolia University, Chile
- Collaborative research project, Northern forestry University, China

## **Training Program Attended**

- Attended National intellectual property awareness/training program on 16<sup>th</sup> March 2023, Intellectual property office, India.
- Attended 3days Training Program on Thin Film synthesis and characterization Techniques conducted by Center for Nanoscience and Nanotechnology, Sathyabama University (2013).

#### Awards:

• Recipient: Best Young Researcher Award

Awarding Body: Women's Day at Sri Sairam Engineering College Date: March 2024

• Recipient: Best Department Performance Award

#### **Online Courses:**

- NITTTR-Module 1
- NITTTR-Module 2
- NITTTR-Module 3
- NITTTR Module 4
- NITTTR-Module 5
- NITTTR-Module 6
- NITTTR-Module 7
- NITTTR-Module 8
- NPTEL- Solar Photovoltaics Fundamentals, Technology and Applications
- NPTEL -Materials and Characterization

#### **International Visit**

Collaborative research visit to the National Research Center, Egypt, from December 3rd to December 13th, 2024.

## **Technical Skills**

• Languages – C, C++, Java

• Web Technologies – HTML, CSS, JavaScript

## **Reviewer of The Journal**

- Archives of Thermodynamics
- Springer Nature
- Crystals
- Molecules
- Materials
- Processes
- Materials Letters
- Journal of Alloys and Compounds
- Vacuum
- Journal of sol-gel
- The European Physical Journal B
- Journal of Inorganic and Organometallic Polymers and Materials