


<p align="center"><b>Name:</b> <b>Dr. S. GRACE NFANTIYA</b></p>				
<b>Designation:</b>	Associate Professor			
<b>Qualification:</b>	M.Sc., M.Phil., Ph.D.			
<b>Area of specialization:</b>	Nanomaterials & Material Science			
<b>Experience:</b>	<b>Industrial Experience</b>	<b>Postdoctoral Experience</b>	<b>Teaching Experience</b>	
	-	-	2 years and 9 months	
<b>Number of workshops / FDP attended:</b>	<b>Number of Workshops</b>		<b>Number of FDPs</b>	
	-		7	
<b>Publications:</b>	<b>Number of Workshops</b>		<b>Journal</b>	
	<b>National</b>	<b>International</b>	<b>National</b>	<b>International</b>
	1	4	-	11
<b>Books / Book Chapters</b>	4			
<b>Patents:</b>	<b>National</b>		<b>International</b>	
	-		-	
<b>Professional Body Membership</b>	1. IEEE 2. IAE			
<b>Research</b>	<b>Google Scholar ID:</b> <b>Researcher ID:</b> <b>Orcid ID:</b> 0000-0001-9637-0660 <b>Scopus ID:</b> 57719992400 <b>Anna University Guideship:</b> No			

<b>Staff Achievements</b>	<ol style="list-style-type: none"> <li>Loyola Research Day Award 2023 for securing a cumulative impact factor of more than 10</li> <li>Dr. S. Jerome Das Endowment Research Award 2023</li> </ol>
---------------------------	---

### Educational Qualifications:

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	Physics	2016	St.Xavier's College (Autonomous)	M.S. University	79%	I Class with Distinction
PG	M.Sc	Physics	2018	St. Joseph's College (Autonomous)	Bharathidasan University	83%	I Class with Distinction
	M.Phil	Physics	2019	Loyola College (Autonomous)	University of Madras	83%	I Class with Distinction
Ph.D.	Ph.D.	Physics	2024	Loyola College (Autonomous)	University of Madras	Highly Commented	

### Academic Experience:

Name of the College	Designation	Joining Date	Relieving Date	Experience		
				Years	Months	Days
Sri Sai Ram Engineering	Associate Professor	01.07.2025	Till Date	0	8	30
Sri Sai Ram Institute of Technology	Assistant Professor	19.08.2024	30.06.2025	0	10	11
Muthayammal Engineering College	Assistant Professor	21.06.2023	29.06.2024	1	0	9
Total				2	9	9

### Workshops/Seminars attended:

- National Level Workshop on "Material Technology Advancement in Current Scenario - MTACS 2023", organized by Dept of Physics Sathyabama Institute of Science and Technology.
- National Seminar on "Physics of Innovative Materials & Spectroscopy" (NSPIMS-2022), organized by Department of Physics, Dr. Ambedkar Government Arts College, Vyasarpadi on 22nd Sep 2022.
- 23rd National Seminar on "Crystal Growth and Applications" organized by Department of Physics, Bharathiar University, Coimbatore on 28-30th Jan 2019.

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

1. Four Weeks NPTEL - AICTE Faculty Development Programme on “Fundamentals of Electronic Device Fabrication” during July-Aug 2025.
2. Five Days International Faculty Development Programme on “Role of Physics in the Development of Advanced Materials” organized by Department of Physics, NPSBCET, Chennai, from 25.08.2025 to 29.08.2025.
3. Six Days Faculty Development Programme on “Recent Trends In Quantum Computing with Cyber Forensic Systems” organized by Department of Cyber Security, Sri Sai Ram Institute of Technology, Chennai, from 23.06.2025 to 30.06.2025.
4. Five Days Faculty Development Programme on “Recent Trends of Advanced Functional Materials” organized by Department of Physics, Velammal College of Engineering & Technology (Autonomous), Madurai, from 25.03.2024 to 01.04.2024.
5. Five Days AICTE Faculty Development Programme on “Professional Ethics and Plagiarism” organized by Department of Applied Science NITTTR, Chandigarh from 05.02.2024 to 09.02.2024.
6. Five Days National Faculty Development Programme on “Advanced Materials for Energy Applications” organized by Dept of Physics, Sathyabama Institute of Science and Technology, Chennai, during 09th Oct - 13th Oct 2023.
7. Twelve Weeks NPTEL - AICTE Faculty Development Programme on “Physics of Functional Materials & Devices” during July-Oct 2023.

### **Papers presented in International / National Conferences:**

1. Exploration Of The Impact Of Sr/Ni Co- Substitution On The Structural, Morphological, And Dielectric Properties Of Lead-Free Ccto-Based Perovskite Ceramics International Conference on Recent Trends in Materials and Magnetism (RTMM-22), Organized by Department of Chemistry, Loyola College (Autonomous), Chennai-34 during December 15th -16th, 2022.
2. The Influence Of Nickel (Ni) Doping On The Structural And Electrical Properties Of  $\text{CaCu}_3\text{-xNi}_x\text{Ti}_4\text{O}_{12}$  and  $\text{CaCu}_3\text{Ti}_4\text{-xNi}_x\text{O}_{12}$  Perovskite-Oxide Ceramics, International Conference on Advanced Materials (ICAM 2022) organized by Department of Physics, St. Joseph’s College (Autonomous), Trichy during 11th to 12th Feb 2022.
3. SYNTHESIS AND CHARACTERIZATION OF NICKEL OXIDE NANOPARTICLES BY COMBUSTION AND SOL-GEL TECHNIQUES, DAE-BRNS National Laser Symposium (NLS-28), Organized by VIT Chennai Campus during 19-21st Jan 2020.
4. SYNTHESIS AND CHARACTERIZATION OF NICKEL OXIDE NANOPARTICLES BY SOL-GEL TECHNIQUE International Conference on Physics of Materials & Nanotechnology (ICPN-2019), organised by the

Department of Studies in Physics, Mangalore University, Mangalagangothri, Mangalore during 19-21st Sep 2019.

### **Conference/Symposium Attended:**

1. One-Day International Conference on “Materials for Energy Generation and Storage” organized by Department of Physics, Loyola College (Autonomous), Chennai on 16th March 2023.
2. International Conference on “Recent Trends in Materials and Magnetism (RTMM-22)” organized by Department of Chemistry, Loyola College (Autonomous), Chennai during 15-16th Dec 2022.
3. International Conference on “Advanced Materials (ICAM 2022)” organized by Department of Physics, St. Joseph’s College (Autonomous), Trichy during 11th - 12th Feb 2022.
4. International Conference on “Material Science” organized by Department of Physics, Loyola College (Autonomous), Chennai on 17th March 2022.
5. National Seminar on “Physics of Innovative Materials & Spectroscopy (NSPIMS-2022)” organized by Department of Physics, Dr. Ambedkar Government Arts College, Vyasarpadi on 22nd Sep 2022.
6. International Conference on “Recent Advancements in Material Science (New Phy 2020)” organized by P.G & Research Department of Physics, The New College (Autonomous), Chennai on 21st Jan 2020.
7. 28th DAE-BRNS National Laser Symposium (NLS-28), organized by VIT Chennai during 8-11th Jan 2020.
8. National Conference on “Material Science” organized by Loyola Physics Association, Loyola College, Chennai, sponsored by the UGC on 09th Jan 2020.
9. 2nd International Conference on “Materials for Energy and Environment” organized by Loyola Institute of Frontier Energy (LIFE), Loyola College (Autonomous), Chennai on 21st Feb 2020.
10. 23rd National Seminar on “Crystal Growth and Applications (NSCGA-2019)” organized by Department of Physics, Bharathiar University, Coimbatore during 28-30th Jan 2019.
11. GIAN course on “Protective coatings: low-friction, wear, and corrosion organized by Materials Research Centre, Malaviya National Institute of Technology (MNIT) Jaipur during 1st- 5th July 2019
12. International Conference on “Physics of Materials & Nanotechnology (ICPN-2019)” organized by Department of Studies in Physics, Mangalore University, Mangalagangothri, Mangalore during 19-21st Sep 2019.
13. International Conference on “Advanced Nanomaterials for Energy, Environment and Healthcare Applications” organized by Department of Physics, K.S.R. College of Arts and Science For Women, Tiruchengode on 1st Sep 2018.
14. National Conference on “Advanced Materials 2016 (NCAM-2016)” organized by Department of Physics, ST. Joseph’s College (Autonomous), Trichy on 07th Oct 2016.

## Journal Publications:

1. Kathiravan, C., Balachandran, K., **Infantiya, S.G.** "Facile fabrication of Ag-doped NiO nanostructures as a potential electrode material for enhanced supercapacitor applications." *Journal of Materials Science: Materials in Electronics* 37, 4 (2026)
2. **Infantiya, S. Grace**, A. Aslinjensipriya, R. Sylvia Reena, K. Joseph Pious, Periyasamy Sivakumar, C. Justin Raj, and S. Jerome Das. "Probing the structural and electrical traits of lead-free Zn/Mn co-substituted CaCu<sub>3</sub>Ti<sub>4</sub>O<sub>12</sub>-based perovskite ceramics." *Journal of Materials Science: Materials in Electronics* 34, no. 29 (2023): 1994.
3. Reena, R. Sylvia, A. Aslinjensipriya, **S. Grace Infantiya**, R. Ragu, M. Jose, and S. Jerome Das. "Deciphering the role of pristine and Ni ions substituted Co<sub>3</sub>O<sub>4</sub> nanoparticles with altered structural, magnetic and dielectric traits towards elevated photosensing and photocatalytic activity." *International Journal of Environmental Analytical Chemistry* (2024): 1-38.
4. Aslinjensipriya, A., R. Sylvia Reena, **S. Grace Infantiya**, R. Ragu, and S. Jerome Das. "Probing into the physicochemical consequences of pristine and X<sub>0.06</sub>Ni<sub>0.94</sub>O (X= Co, Fe, Cu) nanoparticles for bactericidal, antifungal and hemolytic competency." *Journal of Alloys and Compounds* 938 (2023): 168581.
5. **S. G. Infantiya**, A. Aslinjensipriya, R. S. Reena, S. Deepapriya, J. D. Rodney, S. J. Das, C. J. Raj, Calcium copper titanate a perovskite oxide structure: effect of fabrication techniques and doping on electrical properties—a review. *Journal of Materials Science: Materials in Electronics*. 1-37, (2022) (IF: 2.779)
6. A. Aslinjensipriya, R. S. Reena, R. Ragu, **S. G. Infantiya**, G. Mangalam, C. J. Raj, S. J. Das, Exploring the influence of tin in micro-structural, magneto-optical and antimicrobial traits of nickel oxide nanoparticles. *Surfaces and Interfaces*. 28, 101605 (2022) (IF: 6.137)
7. A. Aslinjensipriya, R. S. Reena, **S. G. Infantiya**, R. Ragu, S. J. Das, Uncovering the replacement of Zn<sup>2+</sup> ions on nano-structural, opto/magneto/electrical, antibacterial and antifungal attributes of nickel oxide nanoparticles via sol-gel strategy. *Journal of Solid State Chemistry*. 311, 123146 (2022) (IF: 3.656)
8. A. Aslinjensipriya, R. S. Reena, **S. G. Infantiya**, N. J. Johbi, J. P. Angelena, S. J. Das, Uncovering the consequences of Ag<sup>1+</sup> on nano-structural, magneto-optical, antibacterial, and antifungal response of nickel oxide particles. *Materials Today: Proceedings*. 2022
9. R. S. Reena, A. Aslinjensipriya, **S. G. Infantiya**, P. A. Vinosha, M. Jose, S. Krishnan, S. J. Das, Examining the effect of pH on the structural, elastic, magnetic, and photocatalytic activities of Cr-Co<sub>3</sub>O<sub>4</sub> nanoparticles. *Journal of Materials Science: Materials in Electronics*. 32(20). 24997-25017 (2021) (IF: 2.779)
10. R. S. Reena, A. Aslinjensipriya, **S. G. Infantiya**, J. D. J. Britto, M. Jose, S. J. Das, Visible- light active

zinc doped cobalt oxide (Zn-Co<sub>3</sub>O<sub>4</sub>) nanoparticles for photocatalytic and photochemical activity. *Materials Today: Proceedings*. (2022)

11. **I. S. Grace**, J. Vinola, S. Deepapriya, John D Rodney, A. Aslinjensipriya, R. S. Reena, A. Chamundeeswari, M. Jose, S. J. Das, Synthesis and characterization of nickel oxide nanoparticles by sol-gel technique. In *AIP Conference Proceedings*. 2244 (1), 070017 (2020)
12. A. Chamundeeswari, S. J. Das, P. L. Mageshwari, G. N. S. Vijayakumar, S. Deepapriya, John D Rodney, **S. G. Infantiya**, A. Aslinjensipriya, R. S. Reena, R. Rathikha, Structural, non-linear optical analysis of ZnO-CdO nanocomposite. In *AIP Conference Proceedings*. 2244 (1), 060001 (2020).

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

1. **Book Title:** Nano-FET Devices: Miniaturization, Stimulation, and Applications - **Chapter Contributed:** Advancements in Nanomaterial Integration for Enhanced Biosensing Applications: Focus on Field Effect Transistor (FET)-Based Devices, Authors: **S. Grace Infantiya\***, D. Anbuselvi, C. Kathiravan, N. Suthanthira Vanitha and T. Narmadha, Pp: 110-168 (59) DOI: 10.2174/9798898810306125010008, Publisher: Bentham Books.
2. **Book Title:** New Frontiers in Materials Science: Interdisciplinary Approaches to Innovation and Technologies - **Chapter Contributed:** Emerging Trends and Future Developments in Smart Materials and Their Applications: A Comprehensive Review, Authors: **S Grace Infantiya**, D Anbuselvi, N Suthanthira Vanitha, Pp: 215-240 DOI: 10.1002/9781394314935.ch11, Publisher: John Wiley & Sons, Inc.
3. **Book Title:** Nano-FET Devices: Miniaturization, Simulation, and Applications (Part 2) - **Chapter Contributed:** A Review of Nanostructure Field Effect Transistor Devices in Healthcare Applications, Authors: N Suthanthira Vanitha, K Radhika, D Anbuselvi, C Kathiravan, **S Grace Infantiya**, A Kalaiyarasan, Pp: 320-350, DOI: 10.2174/97988988103061250101, Publisher: Bentham Science Publishers.
4. **Book Title:** Nano-FET Devices: Miniaturization, Simulation, and Applications (Part 2) - **Chapter Contributed:** The Future Outlook for Field Effect Transistors Using Carbon Nanotubes, Authors: C Kathiravan, J Gowrishankar, S Grace Infantiya, D Anbuselvi, N Suthanthira Vanitha, Pp: 72-109, DOI: , 10.2174/97988988103061250101, Publisher: Bentham Science Publishers.
5. **Book Title:** Nano-FET Devices: Miniaturization, Simulation, and Applications (Part 2) - **Chapter Contributed:** Advances in the Design and Application of Next-Generation Carbon-Based Field-Effect Transistor Biosensors, Authors: D Anbuselvi, **S Grace Infantiya**, N Suthanthira Vanitha, T Divya, C Kathiravan , Pp: 169-214, DOI: 10.2174/97988988103061250101, Publisher: Bentham Science Publishers.
6. **Book Title:** Digital Innovations for Renewable Energy and Conservation, **Chapter Contributed:** Economic Impacts on Renewable Energy Storage System Solar, Wind, and Hydro Power: A Review,

Authors: Anbuselvi D., **GraceInfantiya S.**, Suthanthira Vanitha N., and Bharath D., Publisher: IGI Global.

7. **Book Title:** Harnessing Artificial Emotional Intelligence for Improved Human-Computer Interactions, **Chapter Contributed:** A Review of Artificial Emotional Intelligence for Human-Computer Interactions: Applications and Challenges, Authors: N. Suthanthira Vanitha, B. Niranjana Devi, A. Karthikeyan, K. Radhika, D. Anbuselvi, **S. Grace Infantiya.** DOI: 10.4018/979-8-3693-2794-4.ch003, Publisher: IGI Global
8. Energy Efficient Internet of Things-Based Wireless Sensor Network, Publisher: WILEY.

### **Awards:**

1. Loyola Research Day Award 2023 for securing a cumulative impact factor of more than 10.
2. Dr. S. Jerome Das Endowment Research Award 2023.

### **Online Courses:**

1. Completed Certification course on “PANCHAYAT ADMINISTRATION AND RURAL DEVELOPMENT SCHEMES” conducted by State Institute of Rural Development and Panchayat Raj, Sep 2025.

### **Webinar:**

1. National Webinar on “Taking Research Forward During The Pandemic” organized by Loyola Institute of Frontier Energy (LIFE), Loyola College, Chennai, on 20th May 2020.
2. Webinar on “Energy, Energy Everywhere, How to harness it?” organised by the Department of Chemistry, V.O.Chidambaram College on 21.05.2020.
3. Webinar on “Solar Eruptions” hosted by KARPAGAM INSTITUTE OF TECHNOLOGY Department of Science and Humanities on 23.05.2020.
4. Webinar on “History of Nuclear Fission” organised by the Department of Physics, V.O.Chidambaram College on 25.05.2020.
5. Webinar on “Opportunities and Challenges on Hydrogen Energy and Fuel Cell Technology” organized by AVCE on 26th May 2020.