Name	**Dr. C. Infant Francita Fonseka**
Qualification	M.Sc., Ph. D (Physics)
Designation	Assistant Professor
Year of Joining	19/06/2024
Specialization	Nanomaterials, Energy Storage Devices
Email id	francitafonseka@gmail.com



Seminars/Workshops/FDP

Date	Paper Presented/ Participated	Title of the Paper	Organized By	Workshop/ Seminar/ FDP	Type
21.06.2026 - 30.06.2026	Participated	NEP-2020:Orientation &Sensitization	JNV University, Jodhpur, Rajasthan	FDP	
08.01.2026	Participated	Institutional Progress Framework: An Overview of NIRF and NAAC's New Quality Benchmarks	IQAC, St. Mary's College (Autonomous), Thoothukudi.	Seminar	National
28.10.2025 - 30.10.2025	Participated	Bridging the Digital Divide in Teaching and Learning	St. Christopher's College of Education, Chennai	FDP	
03.10.2025	Participated	International Conference on Innovation in Chemical Sciences for Sustainable Development (ICSSD-2025)	PG department of Chemistry (SSC), St. Mary's College (Autonomous), Thoothukudi	Seminar	National

22.09.2025 - 26.09.2025	Participated	The Art of Proposal Writing	MCC Research Colloquium, Madras Christian college, Chennai.	FDP	National
25.08.2025 - 30.08.2025	Participated	Frontiers in Advanced Materials Characterization Techniques and Applications	PG & Research Department of Physics, Holy Cross College, Trichy and The New College, Chennai.	FDP	National
07.07.25 - 11.07.25	Participated	Harnessing Generative AI : Smart Tools for Teaching, Learning, Evaluation & Research	Depatment of Computer Science, St. Joseph's College, Trichy & South Asia Centre, Globethics, Bengaluru	FDP	
19.12.2024 – 20.12.2024	Paper Presented	Enhanced Electro Chemical Performance of SiO_2 – $NiMn_2O_4$ nanocomposites and their potential use as effective adsorbents for methylene blue	PG and Research Department of Chemistry, VOC College, Thoothukudi	Conference	International
25.11.2024 - 30.11.2024	Participated	-	Department of Physics, SRM Institute of Science & Technology, Ramapuram, Chennai.	Virtual FDP	National
28.11.2024	Participated	-	Library-Learning Resource Center & Readers club, St. Mary's College (Autonomous), Thoothukudi	Webinar	National

21.10.24	Participated	From Challenges to growth	Department of Physics, SRM Institute of Science and Technology, Chennai	FDP	National
18.09.2024	Participated	-	PG and Research department of Zoology, St. Mary's College (Autonomous), Tuticorin.	Seminar	National
06.08.2024	Participated	-	Department of Physics, SRM Institute of Science and Technology, Ramapuram, Chennai.	Workshop	
20.08.24	Participated	Elevate your Research : Author and Editor Insights for Publishing in a Reputed Journal	Marian Research Forum, St. Mary's College (Autonomous), Thoothukudi	Workshop	
22-26 & 29-30.07.2024	Participated	-	Department of Physics, Ethiraj College for Women, Chennai.	Virtual FDP	National
		Structural, Morphological and Elemental Properties of Spinel Manganates ($NiMn_2O_4$) Nanocomposites	Department of Chemistry, V. O. Chidambaram College, Tuticorin.	Conference on Advanced Materials and Their Applications (ICAMA)-2023	International
23.09.2023	Participated		Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore	Webinar on Advancement of Atomic Force Microscope (AFM)	Webinar
11.05.2023 - 12.05.2023	Presented	Structural, Morphological and	Department of Physics and Research Centre,	Conference on Applied Physics over	National

		Electrochemical Properties of Silica-Cobalt Ferrite (SiO_2-$CoFe_2O_4$ Nanocomposites	Malankara Catholic College, Mariagiri	Current Scenario-2023 (NCAP-2023)	
11.03.2023	Participated		Department of Physics, A.P.C. Mahalaxmi College for Women, Thoothukudi	Seminar on Recent Trends in Physical Sciences (RTPS'23)	National
29.09.2022 - 30.09.2022	Presented	Synthesis of Hierarchical SiO_2 Grafted $NiCo_2O_4$ Nanoflowers with Facilitated Structural and Optical Properties	PG & Research Department of Chemistry, V.O. Chidambaram College, Thoothukudi	Conference on Advanced Materials and Their Applications 2022 (ICAMA'22)	International
15.09.2022 - 16.09.2022	Presented	A Facile Synthetic Approach for Coal Fly Ash Assisted Silica Nanoparticles with Enhanced Structural and Optical Properties	Department of Physics, Easwari Engineering College, Ramapuram, Chennai	Virtual Conference on Materials Research (IVCMR-22)	International
08.09.2022	Participated		Department of Science, Universiti Tunku Abdul Rahman, Kampar, Malaysia	Webinar on Scanning & Transmission Electron Microscopy 2022 (i-WASTEM 2022)	International
08.04.2022			V.O.Chidambaram College, Thoothukudi	Seminar on Intellectual Property Awareness Mission	National

04.04.2022			Department of Physics, A.P.C Mahalakshmi College for Women, Thoothukudi	Seminar on Recent Trends in Material Sciences	State
14.03.2022			V.V.Vanniaperumal College for Women, Virudhunagar	Seminar on Recent Advancements in Material Science	National
22.02.2022 & 23.02.2022			Ethiraj College for Women, Chennai	Workshop on Nanomaterials for Clean Energy and Space Astronomy (IWNCESA-2022)	International
20.12.2021			Department of Physics Arasu Engineering College, Kumbakonam	Conference on Material Science and Technology	National
22.09.2021			Bhart Ratna Prof. C.N.R Rao Research Centre, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore	Webinar on Resource Lecture on XRD and its applications	Webinar
11.09.2021			Bhart Ratna Prof. C.N.R Rao Research Centre, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore	Workshop on How to Publish Papers in Quality Journals?	National
04.09.2021			Webinar on Universiti Tunku Abdul Rahman, Kampar, Malaysia	Webinar on Advanced Scanning & Transmission Electron Microscopy 2021(i-WASTEM 2021)	International

26.08.2021 & 27.08.2021			Department of Physics Easwari Engineering College, Ramapuram, Chennai	Conference on Materials Research (IVCMR-21)	International
19.08.2021 & 20.08.2021			V.O.Chidambaram College, Thoothukudi	Webinar on Effective Research Writing and Scholarly Publishing	International
19.08.2021			ELSEVIER, Research Academy at V.O.Chidambaram College	Seminar on Best practices in Scholarly Publication	Seminar
10.08.2021 to 12.08.2021			V.O.Chidambaram college, Thoothukudi	Workshop on Scientific Data Analysis using R under UGC-STRIDE Scheme	Workshop
02.08.2021			Department of Physics, Arasu Engineering college, Kumbakonam	Workshop on UV Bio spec and 3D Optical Profilometer	National
29.01.2021			Department of Physics, Ramco Institute of Technology, Rajapalayam	Webinar on Nanomaterials for Energy and Environmental Applications	Webinar
26.03.2021 & 27.03.2021			V. O. Chidambaram college, Thoothukudi	Workshop on Statistical Tools- SPSS Series-2	Workshop
19.03.2021 & 20.03.2021			V. O. Chidambaram college, Thoothukudi	Workshop on Statistical Tools-SPSS	Workshop
12.01.2021			Department of Physics Sethu Institute of Technology, Virudhunagar	Webinar on Emerging Materials for Solar Energy Conversion	National
23.11.2020 to 28.11.2020			Dr. Mahalingam College of Engineering and Technology, Pollachi	Online Short Term Training Program on Nanomaterials for Clean	Training Program

				Energy and Environmental Applications	
16.11.2020 to 21.11.2020			Dr. Mahalingam College of Engineering and Technology, Pollachi	Online Short Term Training Program Nanomaterials for Clean Energy and Environmental Applications	Training Program
01.10.2019			Kamaraj College, Thoothukudi	Workshop on Writing and Publishing Research articles: A Strategic Approach	Workshop
18.09.2019 & 19.09.2019			Research Advisory Committee, St. Mary's College, Thoothukudi	Workshop on Google Tools for Science Aspirants	Workshop
26.09.2019			Aditanar College of Arts and Science, Tiruchendur	Conference on Advanced Materials	International
12.03.2019			Department of Library, St. Mary's College, Thoothukudi	Workshop on Creating Blog for Google Generation in the 2.0 World	Workshop
20.02.2019			Department of Physics St. Mary's College, Thoothukudi	Workshop on Solar Appliances	Workshop
28.09.2018 & 29.09.2018			Department of Physics St. Mary's College, Thoothukudi	Workshop on Skill Development Program-Smart Phone Servicing	Workshop
29.01.2018			Department of Physics, Arul Anandar College, Madurai	Conference on Advances in Astronomy and Space Technology (NCAAST-18)	National

Papers Published

Paper Title	Author (s)	Journal	Year	Volume	Issue	Page No.
A novel synergistic SiO_2-$NiMn_2O_4$ nanocomposite for enhance supercapacitor and photocatalytic performance	Infant Francita Fonseka, C, Amudhavalli, K, Gautham Devendrapandi, Ranjith Balu	Journal of Materials Science: Materials in Electronics	2026	37	6	
Enhanced Electrochemical Energy Storage Performance of SiO_2-$NiCo_2O_4$ Nanocomposites and their Potential Use as Effective Adsorbents for Methylene Blue	Infant Francita Fonseka, C, Amudhavalli, K,	Brazilian Journal of Physics	2026	56	2	1-25
Fabrication of $NiCO_2O_4$ deposited self	Vinoline, GT, Amudhavalli, K, **Infant**	Ionics	2025	31	1	897-913

doped TiO_2 nanotubes as binder free supercapacitor electrode	**Francita Fonseka, C**,					
Synergistic effect of $CuCo_2O_4$ and self – doped TiO_2 nanotubes in binder-free electrodes for high-performance supercapacitors	Vinoline, GT, Amudhavalli, K, **Infant Francita Fonseka, C**,	Ionics	2025	31		1-23
Preparation of spinel ferrites-based flexible electrodes for high electrochemical performances	Infant Francita Fonseka, C & Amudhavalli, K	Chemical Physics Impact-Elsevier	2024	8		100460
Preparation of SiO_2 Nano Matrix Engend	Infant Francita Fonseka, C, Amudhavalli, K,	Silicon	2024	16	1	157-176

ered from Coal Fly Ash Encrusted with $NiFe_2O_4$ Nanocomposites for High Electrochemical Performance	Vinoline, GT, Arulvathana, S & Thangeswari, S					
Fabrication of silica-cobalt ferrite (SiO_2-$CoFe_2O_4$) nanocomposites for high electrochemical performances	Infant Francita Fonseka, C, Amudhavalli, K & Vinoline, GT	Ionics	2023	29		5055-5072
SiO_2 Nanomatrix Engendered from Coal Fly Ash Encrusted with $NiFe_2O_4$ Nanocomposite	Infant Francita Fonseka, C, Amudhavalli, K, Vinoline, GT, Arulvathana, S & Thangeswari, S,	Brazilian Journal of Physics	2023	53	6	1-18

s for High-Performance Supercapacitor						
Detailed Analysis of Crystal Structure and Optical Properties of Green Synthesized Nanoparticles: Application for Photocatalyst Degradation of Methylene Blue'	Selestin, AV, Amudhavalli, K, Vinoline, GT & **Infant Francita Fonseka, C**	TRENDS IN SCIENCE	2022	19		1-13
Green Synthesis of TiO_2 by Aristolochia Indica Bark Extract and Optical Properties of GO Based TiO_2/Si	Thangeswari, S, **Infant Francita Fonseka C,** Amudhavalli, K, Selestine, AV & Vinoline, GT	Gradiva Review Journal	2022	8		771-778

O_2 Core Shells						
Bio-Synthesis of Graphene Based Silicon Coated Nickel Oxide Core Shell Using Aristolochia Indica Bark Extract and Its Opto-Structural and Morphological Analysis	Thangeswari, S, Vinoline, GT, Amudhavalli, K, Selestine, AV, **Infant Francita Fonseka, C**	Journal of Electronics Information Technology Science and Management	2022	12		177-188
Eco-Friendly Synthesized $Cr_2O_3/SiO_2/GO$ Core Shell Nanoparticles by Aristolochia Indica	Thangeswari, S, Selestine, AV, Amudhavalli, K, **Infant Francita Fonseka, C,** Vinoline, GT	International Journal of Creative Research Thoughts (IJCRT)	2022	10		h338-h345

and their Opto-Structural Analysis-Overview						

Books Published

Department	Name of the Authors	Book Title	Chapter Title	Publisher	Year	ISBN
Physics	C. Infant Francita Fonseka	Machine Learning and Artificial Intelligence in Implantable Pacemaker Technology for Intelligent Cardiovascular Health	Artificial Intelligence Integration with Photovoltaic and Wireless Charging Systems in Implantable Devices	RK Publishing	2025	9349552582

Online Course

Duration	Title	Organized by
12 week	Physics of Renewable Energy Systems	NPTEL , IIT Kharagpur

Patent

Name of the Faculty	Department	Title of the Published Patent	Date
Dr. C Infant Francita Fonseka	Physics (SSC)	Machine Learning – Assisted Evaluation of Antibacterial Activity of Bismuth Ferrite ($BiFeo_3$) Nanoparticles for Healthcare Applications	03.01.2025
C. Infant Francita Fonseka	Physics (SSC)	Solar Powered Agricultural E-Vehicle	07.12.2024

Others:

1. Member of Road Safety Patrol (2024-2025)
2. Member of Veeranganai club (2025-2026)
3. Member of Website Committee (2024- till date)
4. Member of Digital Committee (2025-till date)