

FACULTY PROFILE



Name of the Staff : Dr. A. Panimaya Valan Rakkini

Official Address with E-mail Id : Assistant Professor(SG)/Physics
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ANNA UNIV ID : 9576318

1. Personal Details:

Age : 50 years

Date of Birth : 14/08/1974

Sex & Marital Status : Female/Unmarried

Citizenship : Indian

Qualification : M.Sc., B.Ed., M.Phil., Ph.D

Area of Specialization : Materials Science -Thin Films

Degree	Programme and Specialization	Class/CGPA	Month and Year of passing	Institute/ University
U.G	B.Sc. Physics	First	April 1995	St. Mary's College/M.S University
P.G	M.Sc. Physics	First	April 1997	Department of Physics/ M.S University
	M.Phil. Physics	First	Nov. 2006	DDCE/ M.S University
Doctoral	Ph.D Physics/Thin films	-	May 2018	M.S. University
Others	B.Ed./Physical Science	First	April 1999	St. Ignatius' College of Education/ M.S University

Date of joining: 02/07/2018

Present status: Assistant Professor (SG)/ Physics

Professional Experience: 15 years

Designation	Institution/Organisation	Period	Nature Duties
Assistant Professor (SG)	National Engg. College, Kovilpatti	29/08/2023 - till date	Teaching
Assistant Professor	National Engg. College, Kovilpatti	02/07/2018 - 28/08/2023	Teaching
Assistant Professor	Francis Xavier Engineering College – Tirunelveli-3	01/06/2007 - 20/06/2015	Teaching
Lecturer	St. Ignatius' College of Education, Palayamkottai	01/09/2003 – 31/10/2003	Teaching
P.G Assistant	Rose Mary Model School, Palayamkottai	04/06/1999 – 05/06/2001	Teaching

Courses taught:

Course Title	UG or PG
Engineering Physics I and II, Physics Laboratory I & II, Semiconductor Physics, Semiconductor Physics Lab, Electromagnetic Theory, Electromagnetics Lab, Physics for Civil Engg, - for I year, Engineering Physics (Int), Materials Science , Semiconductor Physics and Digital Electronics(Int) , Semiconductor and Quantum Physics(Int), Innovation thro' Design Thinking I Year Open Electives: Laser Technology for II Mech Engg, Photonics for II ECE	UG

Short term Courses / Seminars / Conference/ Workshops, FDP Attended:

S.No	Title	Period	No of Participants	Venue
1	"Enhancing Teaching and Research Excellence in Engineering Education"	28 th and 30 th Sep 2024	40	Alumni Chamber - NEC
2	"Mentoring and Counselling Skills for Teachers" - NITTTR	26 th to 30 th Aug 2024	45	Alumni Chamber - NEC
3	DST-SERB sponsored National Level Seminar on “RECENT ADVANCES AND CHALLENGES IN ADDITIVE MANUFACTURING OF NANO-STRUCTURED MATERIALS”	28 th and 29 th April 2023	40	Department of Mechanical Engineering, NEC - Kovilpatti
4	International Conference on Materials for the Millenium – MATCON 2019	14 th -16 th March 2019	300	Cochin University of Science and Technology (CUSAT) - Kochi
5	Summer Internship Programme on Nanotechnology	15 th -17 th June 2016	40	Dept of Nanoscience and

				Nanotechnology, Sri Ramakrishna Engg. College, CBE
6	International conference on 'Recent Trends in Advanced Materials'(ICRAM)	20 th – 22 nd Feb 2012	300	VIT Vellore
7	International Conference on Advanced Materials (ICAM 2012)	5 th -7 th Jan 2012	200	Dept. Of Physics, Loyola College, Chennai
8	AICTE-STTP on 'Recent Trends in Atmospheric Sciences'	16 th – 22 nd Aug 2008	35	Dept. Of Physics, IIT Madras
9	One day National Workshop on 'Nanomaterials-Synthesis Characterization and Applications'	29 th Aug 2007	75	Mepco Schlenk Engg College, Sivakasi
10	National Seminar on 'Advances in Materials Science'	27 th , 28 th Mar.2006	100	Dept. Of Physics, M.S.University TvI
11	State level Seminar on 'Expectations'	12 th , 13 th Aug 2003	150	St. Ignatius' College of Education, Palayamkottai
12	3 rd National Workshop on 'Nuclear Structure Physics'	29 th Jan – 2 nd Feb 1996	150	Inter University Consortium for DAE facilities Calcutta Centre (IUC-DAEF)& M.S University

Expert Lecture Delivered: 1

S.No	Title	Venue	Date	Participants
1.	Lecture on 'PHOTONICS'	Dept of S&H NEC	28/11/2018	LAPC Physics Faculty members- Kovilpatti
2	Invited Talk on Ideas Rule the World – Marian Star Science FEST (National Science Day Celebrations)	Auditorium, St Mary's College (Autonomous) Tuticorin	01/03/2023	1000 Students of St Mary's College
3	QIST - A new epoch in Science and Technology	PG Dept of Physics, Sri Sarada College for Women- Tirunelveli	18/03/2024	60 UG and PG Students of Physic
4	Technology : A prime mover of Developed Nation	Semimar Hall Dept of S&H	19/10/2024	75 I Year Students

Webinars, Online FDP Attended:

S.No	Title	Date
1.	Research Outcomes: Technical paper writing, Research proposal, Patent Filling-Dr. Ch. Hima Bindhu -Conducted by Data Teach.ai	22/04/2020
2.	Webinar Series – Saurashtra University –Rajkot-Gujarat 1. Materials for New Technology-Prof. D.G. Kuberkar 2. Space Science for us - Prof. Hari Om Vats 3. Plasma and its Applications - Dr. Mukesh Ranjan 4. Computational Software for Physicists and Engineers.	05/05/2020 06/05/2020 07/05/2020 08/05/2020
3.	Education Uninterrupted –Career Launcher Edn Foundation (AP) 1. Online Learning & Analytics- Amit Mahensaria 2. Aspiration.ai Platform- Gautam Bawa 3. Cloud Labs as a service- Venkatesh Perumal	08/05/2020
4.	Simulink an Overview - Conducted by Data Teach Labs	25/06/2020 – 30/06/2020
5.	Kesterite Solar Cell – Basics and Design – International Webinar, St. Aloysius College Edathua Kerala	27/06/2020
6.	Semiconductor Science and Technology – East West College of Engineering - Bangalore	13/08/2020
7.	Use of LMS, Virtual Teaching and OBS software for Engineering Colleges - Faculty Development Programme- Vmedulife Software Services	20/08/2020
8.	Course on MATLAB Masters - Data Teach Labs	12/10/2020 -11/11/2020
9.	"Industry - Institute Interaction Webinar On Optical and Electrical Modelling Software for Semiconductor Devices (OEMSSD - 2020)" – Bharathiyar University -Coimbatore	15/12/2020

10.	FDP - Research proposal: Writing and Opportunities-Government College of Technology, Coimbatore	06/01/2021-08/01/2021
11.	National Webinar on NEP 2020: Vision to Action – IIIT –Kalyani West Bengal	13/05/2021
12.	National Level FDP on Advance Topics in Physics – Marian Star Centre Dept of Physics St. Mary’s College (Autonomous) Tuticorin sponsored by Dept of Biotechnology Ministry of Sci & Tech Govt of India.	12/07/2021 -17/07/2021
13.	“FIVE DAYS INTERNATIONAL FACULTY DEVELOPMENT PROGRAMME ON NANOMATERIALS”- Marian Star Centre, Department of Physics, St. Mary’s College (Autonomous), Thoothukudi. Sponsored by Department of Biotechnology, Ministry of Science & Technology, Govt. of India, New Delhi	23.11.2021 to 27.11.2021
14.	5 Days National Level Faculty Development Programme on METHODS OF MATERIALS SYNTHESIS – Dept of Physics and Electronics, Bhavan’s Vivekanda College (Autonomous), Sainikpuri Secundrabad. Under DBT -Star Colleges Scheme	18/01/2022 -22/01/2022
15.	Five Days International Faculty Development Programme on "SMART MATERIALS FOR NEW TECHNOLOGY" St. Mary’s College (Autonomous), Thoothukudi. Sponsored by Department of Biotechnology, Ministry of Science & Technology, Govt. of India, New Delhi	18/02/2022 – 23/02/2022
16.	“International Faculty Development Program on FOREMOST FRONTIERS OF MATERIAL SCIENCE” Department of Physics, Sathyabama Institute of Science and Technology, Chennai	12/09/2022 – 20/09/2022.
17.	one-week online Faculty Development Program cum workshop on "Computational Modelling of Materials" organized by the Department of Physics at Madanapalle Institute of Technology & Science Andhra Pradesh.	08-12 May, 2023
18.	5-day Online UHV FDP - AICTE	5 th -9 th Aug 2024
19.	FDP - Emerging Trends in Photonics (Online) organised by Electronics & ICT Academy NIT Warangal and Dept of Sciences, IITDM Kurnool AP	17 th -27 th March 2025

Research Achievements:

Publications: 3 ; Journal publications(Scopus): 1; International Journal Publications: 2

Research Supervisorship: Ref N0: 3970027 (Science & Humanities)Anna University Chennai 5/5/22

Area of Specialization: Materials Science-Thin Film

S.No	Title of the Paper	Name of the Journal	Vol.No & Page No.	Month & Year
1	“Effect of different combinations of precursors of zirconium and selenium in the electrodeposited ZrSe ₂ thin films” A. Panimaya Valan Rakkini and K. Mohanraj	Ionics [I.F 2.289)	Vol. 24, Iss.4, pp1243-1252 DOI 10.1007/s11581-017-2265-9	April 2018
2	“Influence of pH of the electrolyte on the formation and properties of electrodeposited ZrSe ₂ thin films” A. Panimaya Valan Rakkini and K. Mohanraj	Inorganic Nano metal Chemistry (IF 1.63)	Vol.52, Iss.4 pp 570-575 DOI: 10.1080/24701556.2021.1913420	April 2021

Scopus Indexed Journal Publications:

S.No	Title of the Paper	Name of the Journal	Vol.No & Page No.	Month & Year
1.	“Facile Synthesis of Spherical Flake-shaped CuO Nanostructure and Its Characterization towards Solar Cell Application” Jemibha Pauldurai, Ahila Mudisoodum Perumal, Dhanalakshmi Jeyaraja and Panimaya Valan Rakkini Amal	Walailak J Sci & Tech –Applied Science [I.F 0.146]	Vol 18, Issue 18 pp 9944 DOI : 10.48048/wjst.2021.9944	August 2021

International Conference Publications

S.No	Title of the Paper	Name of the Conference	Organizer	Month & Year
1.	“Effect of deposition potential on Composition and Morphology of ZrSe ₂ thin films electrosynthesized from different cation precursors”	International Conference on Materials for the Millenium	Cochin University of Science and Technology (CUSAT) - Kochi	14 th -16 th March 2019
2.	“Study of concentration effect of complexing agent on electrodeposited ZrSe ₂ thin films” - A. Panimaya Valan Rakkini and K. Mohanraj,	International Workshop on Advanced Functional Materials and Devices IWAFFMD 2017	Dept. of Physics, Manonmaniam Sundaranar University Tirunelveli.	8-12 January 2017

National Conference Publications

S.No	Title of the Paper	Name of the Conference	Organizer	Month & Year
1	“Effect of annealing on the photosensitivity of ZrSe ₂ thin films electrodeposited from different cation sources” - A.Panimaya Valan Rakkini and K. Mohanraj,	4 th National Seminar on Technologically Important Crystalline and amorphous Solids (TICAS-2018)	Kalasalingam Academy of Research and Education, Krishnankoil, Srivilliputtur	2 nd and 3 rd March 2018
2	“Morphological and optical studies on ZrSe ₂ thin films electrodeposited from different cation sources” - A.Panimaya Valan Rakkini and K. Mohanraj,	National Conference on Processing and Fabrication of Advanced Materials 2018 (NCPFAM 2018)	Department of Physics, Indian Association for Crystal Growth at SSN college of Engg, Chennai	1 st and 2 nd March 2018
3	“The effect of pH variation on the structural and optical properties of electrodeposited ZrSe ₂ thin films” - A. Panimaya Valan Rakkini and K. Mohanraj, Awarded as best poster	National Seminar on Advances in Materials Science NSAMS 2017;	Dept. of Physics, Manonmaniam Sundaranar University Tirunelveli.	2&3 March 2017

**Honors / Awards: - NPTEL Discipline Star –PHYSICS
By IIT Madras (Jan-Apr 2021)**

Academic Achievements

NPTEL Courses Certified(14): Solid state physics, Experimental Physics I, Waves and Oscillations, Solar Photovoltaics Fundamentals, Technology And Applications Electromagnetism, Experimental Physics II, Experimental Physics III, Physics for Renewable Energy System, Biophotonics, Design Thinking - A Primer, Physics Of Functional Materials And Devices, Electronic Theory of Solids Digital Circuits, Photonic Integrated Circuits,

Projects/Patents:- Mentor for MSME project for Product Development fund (14 Lakhs) Ministry of Micro, Small and Medium Enterprise, Govt. Of India (selected in MSME Hackathone 3.0 (Women)) - Sanctioned 9.8 L (70%) in May 2025
IMPLEMENTATION OF INTERACTIVE TOUCH SCREEN TABLES AT RESTAURANTS

Short term Courses / Seminars / Conference/ Workshops/ Webinars organised:

S.No	Title	Period	No of Participants	Venue
1.	‘Understanding of Solar PV Value Chain and Advancement in Solar PV Technologies and Business Opportunities’. – Dr. C.V. KANNAN, Head Technology- R &D & Product Development, Adani Solar, Mundra,	07/08/2020	140	G-meet

	Gujarat			
. 2.	Karka Kasadara- Empowering You for Better Learning”- Dr. S.S.SRINITHI, Consultant Psychologist, SANMIRA Centre for Psychological Interventions, Tirunelveli	07/10/2020	342	G-meet & YouTube
3	HIJACK UR REAL SELF(Psychological Well-being in Adolescence) An Insight Ptogramme	01-07-2023	540	NEC Auditorium
4	Expert Talk for Faculty members: Data Science and Bio Informatics: Opportunities in Science Space	09/12/2023	25	Smart Class Room, Dept of S&H
5	Expert Talk for students: Drug Discovery and Development:Application of Engineering Principles in Biology	09/12/2023	145	Seminar Hall, Dept of S&H

Additional Responsibilities held :

1. Time Table in- charge(2019-2020 Even Sem onwards till 2021-2022 Odd Sem);
2. Physics Lab –in Charge (1-7-2019 to 30-8- 2024)
3. Science Club Coordinator (1-9-2021 till date)
4. NBA Coordinator (Dept of S&H) (2023 till date)
5. Youth Welfare Club (1-7-2024 till date)