



### FACULTY PROFILE

<b>Name</b>	Dr. Santhosh T C M
<b>Employee ID</b>	AIET004
<b>Designation</b>	Associate Professor
<b>Educational Qualification</b>	M.Sc. Ph.D.
<b>Area of Specialization</b>	Physics, Material Science,
<b>Department</b>	Physics
<b>Date of Joining to AIET</b>	01-09-2023
<b>Total Experience in years</b>	Teaching: 08 Research: 07
<b>E-mail</b>	santhosh@akashiet.com

#### Details of Educational Qualification

Degree	Specialization	Passed out year	University
Ph.D.	Physics	2018	NITK, Surathkal
M.Sc.	Condensed Matter Physics	2012	Davangere University
B.Sc.	Physics, Mathematics, C S	2010	Kuvempu University

#### Research Details

Research Areas	Semiconductor Thin Films, Photovoltaic Materials, Binary and Ternary Chalcogenides.
Google scholar ID	QFuK_egAAAAJ
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Vidwan-ID	392147
h-index (Scopus)	4
i10 index	3

## MOOC/NPTEL

Sl. No	Name of the Course	Duration of the course	Month and Year of completion	Course offered by
01	Introduction to Quantum Computing	21 days	May, 2025	Alison
02	Gateway to Quantum Computing – Exploring the Basics	30 Hr.	April, 2024	Alison
03	Introduction to Data Analysis using Microsoft Excel	01 week	April, 2024	Coursera
04	Business Analysis & Process Management	01 week	April, 2024	Coursera

## Papers Published in Journals

Sl. No.	Title of the paper	Year of Publication	Journal Name	DOI
1	Preparation of vacuum deposited cadmium selenide thin films for optoelectronic applications	2016	Materials Today: Proceedings	<a href="https://doi.org/10.1016/j.matpr.2016.04.129">10.1016/j.matpr.2016.04.129</a>
2	Effect of Ag in CdSe thin films prepared using thermal evaporation	2017	Semiconductors	<a href="https://doi.org/10.1134/S1063782617120181">10.1134/S1063782617120181</a>
3	Band gap engineering of mixed Cd(1-x)Zn(x) Se thin films	2017	Journal of Alloys & Compounds	<a href="https://doi.org/10.1016/j.jallcom.2017.01.307">10.1016/j.jallcom.2017.01.307</a>
4	Effect of Bi doping on the properties of CdSe thin films for optoelectronic device applications	2017	Materials Science in Semiconductor Processing	<a href="https://doi.org/10.1016/j.mssp.2017.06.004">10.1016/j.mssp.2017.06.004</a>
5	Synthesis and band gap tuning in CdSe(1-x)Te(x) thin films for solar cell applications	2017	Solar Energy	<a href="https://doi.org/10.1016/j.solener.2017.05.079">10.1016/j.solener.2017.05.079</a>
6	Effect of Annealing on the Structural Electrical and Optical Properties of CdSe Thin Films	2018	Advanced Science Letters	<a href="https://doi.org/10.1166/asl.2018.12180">10.1166/asl.2018.12180</a>
7	Synthesis and Characterization of ZnO Nanoparticles for Photocatalytic Degradation of Organic Dyes	2025	International Journal of Environmental Studies	<a href="https://doi.org/10.64252/q031dm92">10.64252/q031dm92</a>

### Book Chapter Published

Sl. No	Title of the paper	Year of Publication	Journal Name	DOI
1	Exploring Electro-catalytic Excellence of MXene-based Catalysts for Supercapacitance Studies	2025	Materials Research Forum LLC	10.21741/9781644903797-3

### Papers Presented in International/national Conferences

Sl. No	Title of the paper	Name of the Conference	Date of Conference	Place
1	Effect of annealing on the structural, electrical and optical properties of CdSe thin films”	International Conference on Nanoscience and Nanotechnology	19 <sup>th</sup> -21 <sup>st</sup> Oct, 2016	Vellore Institute of Technology, Vellore
2	Preparation of vacuum deposited cadmium selenide thin films for optoelectronic applications	Recent Advances in Nano Science and Technology- 2015	8 <sup>th</sup> -10 <sup>th</sup> , July 2015	Sathyabhama University, Chennai
3	Growth and characterization of cadmium selenide thin films.	Condensed Matter Physics and Applications-2015	27 <sup>th</sup> - 28 <sup>th</sup> , March 2015	Manipal Institute of Higher Education, Manipal
4	Polyaniline-Cadmium Ferrite: Nanostructured Composite for resistive type humidity sensor at room temperature	2 <sup>nd</sup> International Conference on Recent Trends in Applied Physics & Material Science	15 <sup>th</sup> -16 <sup>th</sup> , Nov 2024	Govt. Engg. College, Bikaner

### Book Published

Sl. No	Title of the book	Year of Publication	Published by	ISBN
1	Preparation and Properties of II-VI Semiconductor Thin Films and their Applications	2023	Self	978-93-5737-433-0

### IPRs/ Patents

Sl. No	Title of the IPRs/ Patents	Year of Publication	IPRs/ Patents number
1	Advanced Hybrid Solar Cell and Photoelectric Conversion Element	05/12/2025	202541113757A
2	A method of Generating Electricity by Utilizing Microbial Fuel Cell for Wastewater Treatment	06/12/2025	202541113758A
3	Solar Panel Energy Generation Monitoring Device	03/07/2024	422105-001

### Membership of Professional Bodies

Sl. No	Professional Body / Society	Year of Joining	Nature of Membership	Membership ID
1	International Scholars	2023	Professional	INSC2023AD78
2	Indian Physics Association	2023	Member	AM-2023-DHA-13832
3	Karnataka Physics Association	2023	Life Member	

### Past positions

Sl. No	Designation	Organization	Period	
			From	To
1	Assistant Professor & HOD First Year Coordinator	Akash Institute of Engineering and Technology	01-09-2023	31-08-2025
2	Assistant Professor & HOD	Nagarjuna College of Management Studies, Chikkaballapur	01-07-2019	31-08-2023