

PROFILE OF THE FACULTY

1. Name, Address &email : Dr. E. Kumar
Assistant Professor of Physics
School of Science
Tamil Nadu Open University,
2. Designation & School : Assistant Professor of Physics,
School of Science
3. Subject Specialization : Physics (Nanoscience)



4. Educational Qualification

S.No.	Examination Passed	Name of the Board/ University	Year of Passing	Subject
1	PG	M.S University, Tirunelveli	2000	Physics
2	M.Phil.	M.S University, Tirunelveli	2005	Physics
3	B.Ed.,	IGNOU, Newdelhi	2007	Physics
4	P.hD.,	PRIST University, Thanjavur	2011	Physics

5. Fellowship/Award

S.No.	Name	Institution	Purpose of Award	Year
1	Best Teacher	TNOU		2018

6. Teaching Experience

S.No	Name of Employer	Designation	Period of Employment	
			From	To
1	Infant Jesus College of Engineering, Thoothukudi	Lecturer in Physics	June 2000	June 2008
2	Infant Jesus College of Engineering & Technology, Thoothukudi	Assistant Professor in Physics	July 2008	Dec 2011
3	Infant Jesus College of Engineering & Technology, Thoothukudi	Professor	Jan 2012	Jan 2015
4	Tamil Nadu Open University, Chennai	Assistant Professor	Feb 2015	Till date

7. Administrative Experience

S.No.	Positions held	Name of the Institutions	Duration		Year of Experience
			From	To	
1	Head of the Department and I year Coordinator	Infant Jesus College of Engineering & Technology, Thoothukudi	Jun 2009	Jan 2015	6
2	Coordinator, MPDD	Tamil Nadu Open University, Chennai	April 2016	Dec 2017	1 year 8 months
3	Asst Controller of Examination	Tamil Nadu Open University, Chennai	Jan 2018	Feb 2019	1 year 2 months

8. Research Supervision

Degree	Number Enrolled	Thesis Submitted	Degree Awarded
M.Phil.			4
Ph.D.	3	1	2

9. Books, Articles and Research Publications and Presentations

a) Research Papers in Journals (National & International)

S. No.	Title of the Paper	Journal	Month& Year	Vol. (Issue), Pages	Impact Factor/ H index/ i10
1.	Characterisation of TriGlycine Sulphate(TGS) crystals grown in Water-soluble CdS nanoparticles dispersed in water	Indian Journal of Science and Technology	2010	3(1), 41-43	
2.	Preparation and Studies of Cerium dioxide (CeO ₂) nanoparticles by Microwave-assisted Solution Method,	International Journal of Recent Research in science and Technology	2010	2(4),37-41	1.53
3.	Synthesis and Characterisation of PANI/Ceria (CeO ₂) nanocomposites	International Journal of Experimental Sciences,	2010	1(11),11-14	
4.	Preparation and characterization of polyaniline/cerium dioxide (CeO ₂) nanocomposite via	Journal of Materials Science	2012	47 (20), 7148-7156	3.442

	in situ polymerization				
5.	Synthesis and characterization of CeO ₂ nanocrystals by solvothermal route	Materials Research	2013	16 (2), 269-276	1.39
6	Enhancement of ionic conductivity in the semi crystalline nanocomposites Polymer electrolytes for storage applications,	International Journal of Current Research,	2013	5 (3), 684-688	1.012
7.	Preparation and Characterization of Polyaniline/Cadmium Sulfide (PANI/CdS) nanocomposite via in-situ polymerization,	International Journal of Recent Scientific Research	2014	5 (8), 1491-1494	H index- 14 I 10 Index-42
8	Preparation and Characterization Of Mn ₃ O ₄ nanoparticles by Solvo-Thermal Method,	International Journal of Current Research	2014	6 (3), 5477-5480	1.102
9	Synthesis and Characterization of SnO ₂ And PANI doped SnO ₂ nanoparticles by Microwave-assisted solution Method,	International Research Journal of Engineering and Technology,	2015	2 (9), 2634-2640,	H index- 16 I 10 Index-64
10	Synthesis and characterization of sno ₂ nanoparticles by microwave - assisted solution method	International Journal of Current Research	2015	7 (Issue, 11), pp.23162-23166	1.102
11	Synthesis and Structural Investigation of Mn ₃ O ₄ nanoparticles by Microwaveassisted solution method,	International Journal of Recent Scientific Research	2015	6 (11), 7266-7270	H index- 14 I 10 Index-42
12	Synthesis and Structural Investigations of Titanium Di-oxide (TiO ₂)	International Research Journal of	2015	2 (9), 458-461	H index- 16 I 10 Index-64

	Nanoparticles by Microwave Assisted Method,	Engineering and Technology,			
13	Synthesis and Characterization of NiO Nanoparticles by Thermal Decomposition Method,	International Journal for Scientific Research & Development	2016	3 (11), 99-101	4.396
14	Structural and frequency dependent dielectric properties of zno nanoparticles and pani / zno nanocomposite by microwave-assisted solution method.	International journal of advanced research	2016	4 (10), 572-578	7.08
15	Synthesis and Structural Investigations of ZnO–SnO2 Nanocomposite by Sol–Gel Method	Journal of Nanoscience and Technology	2017	3 (1), 242-244	
16	Preparation and Investigation on Structural, Spectral and Electrical Properties of Polyaniline/Manganese Dioxide Nanocomposites	Journal of Materials and Environmental Sciences	2017	8 (10), 3490-3495	H index-29
17	Structural, Optical, and AC Conductivity Properties of Polyaniline/Manganese dioxide nanocomposites via In Situ Polymerization,	International Journal of Research in Advent Technology	2018	6 (5) 460-464	H index- 13 I 10 Index-72
18	Preparation and Investigation on Electric Impedance, Modulus, and Dielectric Properties of Polyaniline/Manganese Dioxide Nanocomposites’	International Journal of Creative Research Thoughts	2018	vol. 6, no. 2, pp. 543-549	5.97
19	Investigation on Structural and Optical Properties of Manganese Dioxide Nanoparticles by Microwave-Assisted Solution Method,	International Journal of Research in Advent Technology	2018	6(7) 1531-1535,	H index- 13 I 10 Index-72

20	Preparation and characterization of TiO ₂ nano particles via Microwave assisted Solvothermal method	International Journal of Management, Technology And Engineering	2018	8 (12) 4392-4399	
21	Synthesis and Investigations on structural, optical, thermal and electrical conductivity of α -MnO ₂ nanoparticles,	Journal of Applied Science and Computations,	2019	6 (2)	5.8
22	Synthesis and Investigations of Structural, Optical and AC Conductivity Properties of PANI/CeO ₂ Nanocomposites	Asian Journal of Chemistry	2019	31 (5), 1158-1162	.14
23	Synthesis and Investigation of Antimicrobial Activity of Tin Oxide Nanoparticles by Microwave Assisted Solution Method	Journal of Nanoscience and Technology,	2019	5(1), 637-639	
24	Microwave Assisted Synthesis of Zinc Oxide Nanoparticles and Its Antimicrobial Efficiency	Journal of Nanoscience and Technology,	2019	5(1), 640-641	
25	Synthesis and Characterization of ZrO ₂ Nanoparticles using Microwave Assisted Method and Its Antimicrobial Activity	Journal of Nanoscience and Technology,	2019	5(1), 642-644	
26	Investigations of Structural, Optical, and Stability Analysis of ZrO ₂ Nanoparticles	International Journal of Research in Advent Technology,	2019	7(4), 290-293	H index- 13 I 10 Index-72
27	Structural, Optical, And Frequency Dependent Conductivity Properties Of PANI/CeO ₂ Nanocomposites By In Situ Polymerization Method	International Journal of Research in Advent Technology,	2019	7 (4), 98-102	H index- 13 I 10 Index-72

28	Structural, Biological and Photocatalytic Properties of Zirconium Oxide Nanoparticles Synthesized by Microwave Assisted Solution Method	Asian Journal of Chemistry	2019	31 (8), 1729-1732	.14
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10. National/International Conferences

a) Papers Presented in International / National Conferences

S.No	Title of the Paper	Title of the Conference/ Seminar	Organized by
1.	“Preparation and studies of cerium dioxide (CeO ₂) nanocrystal by microwave assisted solution method”	National Seminar on Crystal Growth of Laser and NLO Materials (NSCGOM – 2008)	National College, Trichy, 25-26 September 2008
2.	Characterization of cerium dioxide (CeO ₂) nanoparticles by microwave oven.”	National Conference on Nano Materials (NCN - 2008)	Karunya University, Coimbatore, 17-18 October 2008
3	Characterization of Cds-Zns nanocomposites synthesized by microwave assisted solution method”	International Symposium for Research Scholars, Metallurgy, Material Science and Engineering. (ISRS-2008)	IIT Madras, 10-12 December 2008.
4	Synthesis and Studies of PANI/CeO ₂ nanocomposites	National Seminar on Crystal Growth conducted by S.S.N College	Kalavakkam, Chennai, 27-29 January 2009.
5	Synthesis and Characterization of cerium dioxide (CeO ₂) nanoparticles by using a microwave Oven.	National conference on Recent Advancement and development in material Science (RAADIMS '09)	MEPCO Engineering College, Sivakasi, 20-21 February 2009.

6	Synthesis and Characterization of PANI/CeO ₂ nanocomposites	International Conference on Photonics, Nanotechnology and computer Applications (ICOPNAC – 2009).	PRIST UNIVERSITY, Vallum, Thanjavur. 25-28 February 2009
7	characterization of Ceria/Polyaniline nanocomposites prepared by solvo thermal route	National Seminar on Advances in Material Sciences (NSAMAS – 2009)	Dept. of Physics, M.S University, Tirunelveli, 16-17 March 2009.
8	Synthesis and Structural studies of of PANI/CeO ₂ nanocomposites	National conference on recent Trends in crystal growth, thin films and Nano-structured materials	Adithanar College of Arts and Science, Tiruchendur, 5-6 August 2009.
9	Synthesis and Characterization of PMMA/CeO ₂ nanocomposites	National conference on recent Trends in crystal growth, thin films and Nano-structured materials	Adithanar College of Arts and Science, Tiruchendur, 5-6 August 2009.
10	Synthesis and characterization of MnO ₂ nanoparticles	National seminar on Recent Trends in Materials science	Sadakathullah Appa College, Tirunelveli. 16 Feb 2015
11	Preparation and characterization of Polyaniline/Manganese Dioxide nanocomposites	National seminar on Recent Trends in Materials science	Sadakathullah Appa College, Tirunelveli. 16 Feb 2015
12	Preparation and Investigation on Structural	International Conference on "Advances in	M. Kumarasamy College of

	and Spectral properties of Polyaniline/Manganese dioxide nanocomposites via In Situ Polymerization	Materials (AiM-2017)	Engineering, Karur, April 2017
13	Preparation of Titanium Dioxide Nanoparticles and Evaluation of its Structural and Spectral Properties	International Conference on Synthetic Materials for Science and Engineering Applications (SMSEA-2018)	M. Kumarasamy College of Engineering, Karur, April 2018
14	Preparation and Investigations on Electric Impedance, Modulus and Dielectric Properties of Polyaniline/Manganese Dioxide Nanocomposites	First International conference on Recent Innovations In Applied Science, Engineering and Technology	SCAD College of Engineering and Technology, Cheranmahadevi, 13 April 2018
15	Investigation on Electric Impedance, Modulus, and Dielectric Properties of Manganese Dioxide Nanocomposites	National Seminar on Advances in Material Sciences (NSAMAS – 2018)	Mononmaniam Sundaranar University, Tirunelveli, June 2018.
16	Preparation and Characterization of TiO ₂ Nanoparticles via microwave assisted solvothermal method	International conference on multidisciplinary approaches in social sciences, Humanities and science	Sri SRNM college, sattur, Tamilnadu, Dec 2018.

b) Participation in International Conferences/Seminars/Symposia/Workshop

S.No.	Name of the event	Place & dates	Attended/Title of paper presented
1.	National Conference	M.D.T Hindu College, Tirunelveli, February,2015	Synthesis and structural investigation on mangesdioxide nanoparticles using microwave assisted solution method.
2.	International Conference	Devanga Arts college, January	Microwave assisted synthesis

		2016	of MnO ₂ nanoparticles
3.	International Conference	Sri SRNM college, Feb 2017	Investigation on the preparation and properties of nanostructured cerium dioxide
4.	International Conference	Sri SRNM college, Feb 2018	Synthesis and investigations on Structural, optical and electrical conductivity of MnO ₂ nanoparticles.
5	International Conference	Sri SRNM college, March 2018	Structural characterisation of PANI\MnO ₂ nanocomposites

11. Served as Member in Professional Bodies/Committees (BoS, Academic Council, Inspection Committees, National forums etc.)

- I. Member – Board of Studies, School of Science, Tamil Nadu Open University, Chennai,
- II. Member- Academic Audit, Stella Maris College, Chennai
- III. Technical Reviewer in International Journals:
 - a) Electrochemicals Letters, by Electrochemical society, USA.
 - b) Journal of Chemical Engineering and Technology - Wiely publication, Germany.
 - c) Journal of nanoparticle research- Springer.
 - d) Journal of Experimental nanoscience – Taylor-francis group
 - e) Advances of Optical Materials- Hiwai Publications- USA
 - f) International Research Journal of Pure and Applied Chemistry- SCIENCEDOMAIN *international- USA*

g) American Chemical Science Journal- SCIENCEDOMAIN *international-USA*

h) Journal of Scientific Research- Bangladesh

i) Journal of Electronic Materials (JEMS), Springer

- IV. Member of Governing Council, Discipline committee and Staff selection committee in
Infant Jesus College of Engineering and Technology, Keelavallanadu.
- V. Special talk about “Universe, nanotechnology and plasma” in All India Radio, Tirunelveli.
- VI. Guest lecture delivered about “Nano Science” at ISTE Staff chapter at Government
College of Engineering, Tirunelveli.
- VII. Guest lecture delivered about “Synthesis of Nanocomposites” at STC College, Tirunelveli.
- VIII. Guest lecture delivered about “Nanoscience and Nanotechnology” at Saratha College for Women, Tirunelveli.
- IX. Guest lecture delivered about “Introduction to Nanoscience and Nanotechnology” at Sadakathullah Appa College, Tirunelveli.
- X. Invite Lecture delivered in UGC Sponsered National Seminar in Materials Science at Rajah Serfoji Govt. College (Autonomous) Thanjavur 613005, Tamil Nadu.
- XI. Guest lecture delivered in TNSCST sponsored workshop, about solar Energy and applications at GVN college, Kovilpatti. Tamilnadu

- XII. Guest lecture delivered at Dist. Science Centre, Tirunelveli, about “Einstein theory of Relativity”.

Declaration

I hereby, declare that the aforesaid particulars are true to the best of my knowledge and belief.

Dr. E. Kumar