

Govindammal Aditanar College for Women, Tiruchendur
Faculty Profile



1. Name (in Block Letters) : Dr. S. KARPAGAVALLI
2. Department : Physics
3. Qualification : M.Sc., M.Phil., PGDCA, Ph.D., SET,
4. Present Designation : Associate Professor
5. Contact No. : 9442834109
6. Email id : karpagavalli.physics@gmail.com
- Vidwan id : 593738
- Vidwan Link : <https://vidwan.inflibnet.ac.in/profile/593738/NTkzNzM4>
7. Date of joining the present post : 23.07.2003
8. Field of specialization in research : Nanoscience and Nanotechnology
9. Title of the Thesis : Synthesis, Characterization and Applications of Pure and doped Manganese oxide nanoparticles by solvothermal route

10. Orientation / FDP programmes/ other short-term courses attended:

S. No.	Name of the course	University/ Institute	Duration in days	From - To	Online /offline Program
1.	Cyber attacks	CMR Technical campus in association with Indian Servers Hyderabad	One day	19.04.2020	Online
	Cyber Security	Vels Institute of			

2.		Science, Technology and Advanced Studies in association with Indian Servers, Chennai	One day	20.04.2020	Online
3.	Remarkable Structural, Magnetic and Microwave Adsorption Properties of rare earth- doped Mn-Cu Ferrites & <i>In-situ</i> characterization of Materials at Elevated Temperatures	Kristu Jayanti College, Bengaluru	One day	04.05.2020	Online
4.	Recent Developments in Materials Sciences- 20	Department of Physics and Chemistry, Sree Saraswathi Thiyagaraja College, Pollachi, Coimbatore	7 days	16.06.2020 to 22.06.2020	Online
5.	Virtual Learning platform for Experimental Science	Department of Physics, A.P.C. Mahalaxmi College for Women, Thoothukudi	One day	02.07.2020	Online
6.	Recent developments in Material Science – 21	Department of Physics and Chemistry, Sree Saraswathi Thiyagaraja College, Pollachi, Coimbatore	7 days	16.06.2021 to 22.06.2021	Online
7..	Recent trends in Materials Physics	Karpagam Academy of Higher Education, Coimbatore	7 days	22.06.2021 to 28.06.2021	Online

11. Participation /Presentation in seminar/workshop/symposia/conference:

Sl. No.	Level (State/national/international)	Participation /presentation	Title of the paper presented	Title of the seminar / workshop/symposia/conference (Specify online/offline)	Date and Venue
1.	UGC Sponsored Workshop	Participation	-	Thin film technology	7 th & 8 th September 2006, St. Xavier's College, Palayamkottai
2.	National Conference	Participation	-	Recent advancement in nanoscale Research (NCRNR 2012)	August 24-25, 2012, Anna University, Chennai, Madurai Region, Madurai
3.	-	Participation	-	"Current Trends in Nanotechnology"	5.2.2016 & 6.2.2016, Mepco Schlenk Engineering College, Sivakasi, Tamilnadu.
4.	International conference	Presentation	Optical and structural characterization of cobalt doped manganese oxide nanoparticles	A New Horizon in Materials	11.03.2016 Sarah Tucker College, Tirunelveli, Tamilnadu.
5.	International conference	Presentation	Structural, optical and magnetic properties of manganese oxide and cobalt doped manganese oxide nanoparticles by solvothermal method	Functional materials	7-10, September 2016, . PSN College of Engineering and Technology, Tirunelveli, Tamilnadu.
6.	National conference	Presentation	A comparative study of optical and magnetic properties of undoped and cobalt doped manganese oxide nanoparticles	Current Advancement in Physics	3.2.2017 & 4.2.2017, St. John's College, Palayamkottai, Tamilnadu.
7.	International conference	Presentation	Effect of nickel dopant on the structural, optical and magnetic properties of manganese oxide nanoparticles	Nanoscience and Nanotechnology	09-11, August 2017, SRM University, Kattankulathur, Tamilnadu.
8.	International Seminar	Presentation	Structural characterization and electrochemical properties of pure and cobalt doped manganese oxide nanoparticles	Materials Science and Technology	23.2.2018 A.P.C. Mahalaxmi

					College for Women, Thoothukudi, Tamilnadu.
9.	National Conference	Presentation	Enhanced electrochemical properties of Aluminum doped Hausmannite (Mn_3O_4) nanoparticles	Chemistry of Materials NCCM-2018	10 th & 11 th October 2018, Research Department of Chemistry, Sadakathullah Appa college (Autonomous), Tirunelveli, Tamil Nadu. <i>Best poster presentation.</i>
10.	National Seminar	Presentation	Supercapacitive performance of Al- Mn_3O_4 electrode using polyvinylidene fluoride	Emerging trends in Physics NSETP-2019	10 th & 11 th January 2019, Department of Physics, Sadakathullah Appa College (Autonomous), Tirunelveli, Tamil Nadu.
11.	National Seminar	Participation	-	Rare Earth Elements: The intersection of Science and Society	13 th March, 2020, PG and Research Department of Physics, S.T. Hindu College, Nagercoil.

12.	International Seminar	Participation	-	Advanced Materials And their Applications	25 th January, 2023, Department of Chemistry and Research Centre, Aditanar College of Arts and Science, Tiruchendur.
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Online

1	E-Lecture Series 1	Participation	-	Energy and Optical Materials	06.06.2020 St. John's College, Palayamkottai and EdussX
2	Webinar		-	Advances in Crystal growth and Nanomaterials	18.06.2020 Department of Physics, Kamaraj College, Thoothukudi
3	Webinar		-	A star's dance at the Center of our Milky way Galaxy	19.06.2020 Department of Applied Physics, Karunya Institute of Technology and Sciences, Coimbatore
4	Webinar		-	Powder X-ray diffraction patterns analysis using openwares	22.06.2020 Department of Physics, V.O.C. Chidambaram College, Thoothukudi
5	International		-	Recent advances in Materials Science and Technology	26.06.2020 Department of Physics, Aditanar College of Arts and Science, Tiruchendur
6	National		-	Fascinating Energies for Sustainable Environment	29.06.2020 Department of Chemistry, Govindammal Aditanar College for Women, Tiruchendur
7	Webinar		-	The exciting story of Exoplanets	08.07.2020 Department of Applied Physics, Karunya Institute of Technology and Sciences, Coimbatore
8	Webinar		-	Surface Ozone Air Pollution and its impacts on the Environment	15.07.2020 Department of Physics,

					A.P.C. Mahalaxmi College for Women, Thoothukudi
9	National		-	Greening the Red Planet	17.07.2020 Department of Physics and IQUAC, Aditanar College of Arts and Science, Tiruchendur
10	National		-	Dating Geo- Archaeological Materials using luminescence	17.07.2020 Department of Physics, A.P.C. Mahalaxmi College for Women, Thoothukudi
11	Webinar		-	Are we alone in the Universe?	24.07.2020 Department of Applied Physics, Karunya Institute of Technology and Sciences, Coimbatore
12	Webinar		-	Recent Trends in Green Energy Harvesting Technology	23.04.2021 Department of Physics, JP College of Arts and Science Run by DMI sisters, Ayikudi, Tenkasi
13	International Virtual Conference		-	Novel nanomaterials for innovative research, ICNNIR - 2021	29.04.2021 & 30.04.2021 Department of Physics, Rathinam College of Arts and Science, Coimbatore
14	National		-	Recent developments & Future Advancements in Nano-Technology	05.05.2021 Department of Science & Humanities (Physics), Nehru Institute of Technology, Coimbatore
15	International		-	Magnetic Materials and its Applications	06.05.2021 Department of Science & Humanities (Physics), Nehru Institute of Technology, Coimbatore
16	Webinar		-	Synthesis of Nanocomposite Materials and Recent Applications	10.05.2021 Department of Physics, JP College of Arts and Science Run by DMI sisters, Ayikudi, Tenkasi
17			-	Recent developments in Photovoltaics and Current Scenario and Future Scope of Solar Energy: mc-Si Solar cell	19.05.2021 Department of Electronics and Communication Engineering & SSN RC Sri Sivasubramaniya Nadar

					College of Engineering, Kalavakkam
18	International Conference on Sustainable Materials and Technologies for Bio and Energy Applications (SMTBEA- 2021)		-	Two dimensional Nano structured Materials for Energy storage applications and Surface Stabilizing and functionalizing Nanocrystals via Metal-Ligand Coordination	19.05.2022 Department of Electronics and Communication Engineering & SSN RC Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam
19			-	Biomedical Applications of Nanofibers and Advancement in cancer Therapy through Modulation of Nano-bio interface	20.05.2021 Department of Electronics and Communication Engineering & SSN RC Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam
20			-	Microfluidic Droplet and Particle Technologies for Chemistry and Biology and Some interesting applications of magnetic nanoparticles dispersions for heat transfer, sensors and therapeutics	20.05.2022 Department of Electronics and Communication Engineering & SSN RC Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam
21			-	Numerical modelling in growth of oxide crystals from the melt and Nanostructured Metal oxide Thinfilms for sensor and optoelectronic Applications	21.05.2021 Department of Electronics and Communication Engineering & SSN RC Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam
22			-	Twin boundary formation mechanism and refinement of periodically twinned structure in borate crystal and Applications of Machine learning to Czochralski growth of Si	21.05.2021 Department of Electronics and Communication Engineering & SSN RC Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam
23	International conference		-	Light Matter Interaction (ICLMIN)	19.05.2021 to 21.05.2021 Indira Gandhi Centre for Atomic research (IGCAR)
24	Virtual Seminar		-	Technology important Material evolution - TIME 2021	21.05.2021 & 22.05.2021 Department of Science & Humanities, Er. Perumal Manimekalai College of Engineering, Hosur

25	National		-	Microstructural Characterization of Pozzolanic Materials (MCPM - 21)	28.05.2021 Department of Physics, St. Joseph's University, Nagaland
26	Webinar		-	Energy Materials	04.06.2021 Centre for Nanoscience and Technology, Sathyabama Institute of Science and Technology, Chennai
27	Webinar		-	Opportunities and Approaches to get National and International fellowship	05.06.2021 Department of Physics, Noorul Islam Centre for Higher Education, Kumaracoil
28	National		-	Hybrid 2D Metal-Halide Perovskite for Optoelectronic Applications	07.06.2021 Department of Physics AMET (Academy of Maritime Education and Training), Chennai
29	Webinar		-	Be a Nobel Laureate	10.06.2021 Department of PG Chemistry, Aditanar College of Arts and Science, Tiruchendur
30	Webinar		-	Analyse of Structure and Surface Morphology of Engineering Materials using various Microscopic Techniques	14.06.2021 Department of Physics, Dr. MGR Educational and Research Institute, Chennai
31	Webinar		-	Indian Nuclear Power Programme- The radical Power of the Atom: Peaceful Applications of the nucleus	15.06.2021 Department of Applied Physics, Karunya Institute of Technology and Sciences, Coimbatore
32	National		-	Magnetic Smart Materials	17.06.2021 Department of Physics & Research centre and IQUAC, Nesamony Memorial Christian College, Marthandam
33	International		-	Current status and future prospects of perovskite Solar cells	30.06.2021 Centre for Nanoscience and Technology, Sathyabama Institute of Science and Technology, Chennai

34	International		-	The Magnificent Sun - Our Star	08.07.2021 Department of Applied Physics, Karunya Institute of Technology and Sciences, Coimbatore
35	Webinar		-	The Future of Radio Astronomy	15.07.2021 Department of Applied Physics, Karunya Institute of Technology and Sciences, Coimbatore

12. Research publications:

Sl.No	Name of the Journal, Vol. & Issue no., year, pp. no. & ISSN no.	Title of the paper	UGC CARE listed journal (Yes / No)	Author Order
1	International Journal of Current Science Research, Vol. 2, pp. 503-509, 2016	Optical and Structural Characterization of cobalt doped manganese oxide nanoparticles	Yes	1
2	International Organization of Scientific Research- Journal of Applied Physics, Vol. 1, pp. 34-42, 2017	A comparative study of optical and magnetic properties of undoped and cobalt doped manganese oxide nanoparticle	Yes	1
3	International journal of research and analytical reviews, Vol. 5, pp. 141-150, 2018 Journal No: 43602	Structural, morphological and optical studies of cerium doped manganese tetroxide nanoparticles	Yes	1
4	Journal of emerging technologies and innovative research, Vol. 5, pp. 613-618, 2018	Structural and superparamagnetic properties of aluminum doped hausmannite nanoparticles	Yes	1
5	Asian Journal of Chemistry, Vol. 31, No. 4, pp. 793-798, 2019 Journal No: 8774	Spectroscopic and superparamagnetic behaviour of hausmannite manganese oxide nanoparticles	Yes	1
6	Int. J. Nanoparticles, Vol. 11, No. 4, 2019 Journal No: 23203	Effect of nickel doping on the structural, optical, electrochemical and magnetic properties of hausmannite (Mn ₃ O ₄) nanoparticles	Yes	1

13. Membership in the academic bodies of the University /other institutions:

- **Member of Board of studies** in St. Mary's College (Autonomous), Thoothukudi. (2016 & 2024)
- **Question paper setting** for St. Xavier's College, Palayamkottai, St. Mary's College, Thoothukudi, Sarah Tukker College, Tirunelveli, Pope's College, Sawyerpuram and Kamaraj College, Thoothukudi.

14. Research achievements:

No. of papers cited: 5 **cited by 31, h-index 4**

<https://scholar.google.com/citations?user=2QSfrNcAAAAJ&hl=en>

15. Details of academic awards

- **Best Poster Presentation** - 10th & 11th October 2018, Research Department of Chemistry, Sadakathullah Appa college (Autonomous), Tirunelveli, Tamil Nadu.
- **Appreciation certificates** – Naan mudhalvan SPOC (2022-2023)

16. Seminars/Workshops / Enrichment programmes organized

Sl.No.	Date	Name of the programme	Level (National/State /University/college	Role
1	24.06.2020 to 27.06.2020	E-Quiz on “Fundamental Physics”	National	Coordinator
2	22.10.2020	E-Quiz on “General Physics”	College	Coordinator
3	22.01.2021	E-Quiz on “Fundamental Physics”	College	Member
4.	24.04.2021 to 26.04.2021	E-Quiz on” Basic Physics for +2 Students”	School	Member
5	16.10.2021	E-Quiz on “Conceptual Physics”	College	Member

6	11.10.2022 to 12.10.2022	“Practical Enrichment Programme” for +2 Students.	School	Member
7	5.10.2023 to 6.10.2023	“Practical Enrichment Programme” for +2 Students.	School	Coordinator
8.	9.10.2024	“Practical Enrichment Programme” for +2 Students.	School	Member

17. Administrative / Other Experience :

- Prepared Admission – Online Application Procedure -**You tube** (2022, 2023 & 2024)
- Guest Speaker – Founder’s Birthday (24.09.2024)
- Guest Speaker – Krishna Jeyanthi (August, 2014)

Guest Lectures delivered in other institutions:

1. Resource person – ‘Inservice Programme for graduate teachers in science’ at Dr. Sivanthi Aditanar College of Education, Tiruchendur on 2nd & 3rd November, 2006.
2. Guest speaker – ‘National Educational Day’ at Dr. Sivanthi Aditanar College of Education, Tiruchendur on 11th December, 2024.