

PROFILE

Dr.G. Dhanalakshmi

Assistant Professor of Physics

**Mannar Thirumalai Naicker College
(Autonomous)
Madurai**

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QUALIFICATIONS

Research - Ph.D

- **University** : University of Madras
- **College** : Presidency College, Chennai.
- **Title** : Crystal structure, Molecular docking and Hirshfeld surface Analysis of some organic compounds
- **Year** : 2022

M. Phil

- **University** : Department of Nuclear Physics, University of Madras, Chennai.
- **Title** : Synthesis And Characterization of Nanocrystalline $\text{Ni}_x\text{Fe}_{100-x}$ alloy
- **Year** : 2007

M.Sc

- **University** : University of Madras
- **College** : Meenakshi College for Women, Chennai, India
- **Degree** : Physics
- **Year** : 2004

B.Sc

- **University** : University of Madras
- **College** : Stella Maris College, Chennai, India.
- **Degree** : Physics
- **Year** : 2002

2. TEACHING EXPERIENCE

- Worked as Assistant Professor at Misrimal Navajee Munoth Jain Engineering College from September 2007 to April 2019.
- Worked as Assistant Professor at Madonna Arts and Science College for women from June 2019 to October 2020.
- Worked as Assistant Professor (E&C) at Mannar College from January 2021 to April 2021.
- Worked as Assistant Professor Physics (Regular- Adhoc) at Mannar Thirumalai Naicker College from June 2021 to September 2023.
- From October 2023 working as Assistant Professor Physics in Regular stream at Mannar Thirumalai Naicker College.

3. AREA OF SPECIALIZATION

- Crystallography
- Nanomaterials
- Computational Physics

4. RESEARCH EXPERIENCE

Total Number of Publications in UGC Care/SCI/WoS Journal: **12**

- Total Number of Citations : **16**
- h-index: **2**

5. LIST OF PUBLICATIONS

1. Crystal structures of 1-benzenesulfonyl-2-methyl-3-(4-nitrobenzoyl)-2,3-dihydro-1H-indole and 1-benzenesulfonyl-2-methyl-3-[(thiophen-2-yl)-carbonyl]-2,3-dihydro-1H-indole .ActaCryst. E73, 1555–1559, 2017.(**UGC CARELIST- WEB OF SCIENCE INDEXED**)
<https://doi.org/10.1107/S2056989017012804>
2. Crystal structure and Hirshfeld surface analysis of two imidazo[1,2-a]pyridine derivatives: N-tertbutyl-2-(4-methoxyphenyl)-5-methylimidazo-[1,2-a]pyridin-3-amine and N-tert-butyl-2-[4-(dimethylamino) phenyl]imidazo[1,2-a]pyridin-3-amine, ActaCryst.

(2018). E74, 1913–1918.(UGC CARELIST- WEB OF SCIENCE INDEXED)
<https://doi.org/10.1107/S2056989018016651>

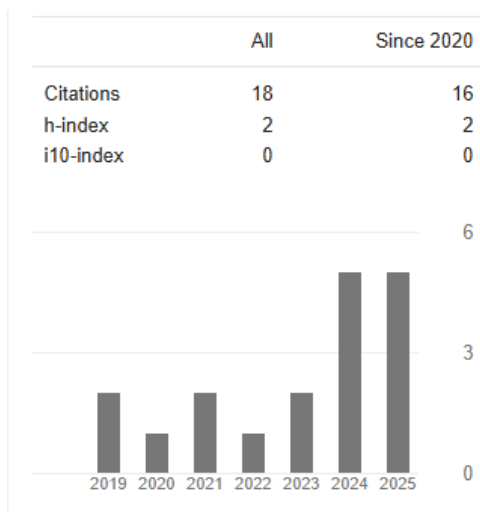
3. Synthesis, Crystal Structure, Hirshfeld surface, Energy framework, and Molecular docking analysis of two novel carbazole derivatives, Asian Journal of Chemistry, Vol. 31, No. 12 3017-3028 (2019). (UGC CARELIST) <https://doi.org/10.14233/ajchem.2019.22430>
4. N-(tert -Butyl)-2-(2-nitrophenyl)imidazo[1,2-a]pyridin-3-amine, IUCrData (2019). 4, x191477.(UGC CARELIST) <https://doi.org/10.1107/S2414314619014779>
5. Synthesis, Crystal Structure, Hirshfeld Surface, Energy Framework and Molecular Docking Analysis of diacrylate, Journal of Advanced Scientific Research, 11(3), Suppl 7, 2020, 103-112 .(UGC CARELIST) <https://scisage.info/index.php/JASR/article/view/1841>
6. Identification of potential anti-cancer drug target by x-ray crystallography, Hirshfeld surface, molecular docking and molecular dynamics simulation studies, Journal of Advanced Scientific Research, 12(1), Suppl 1 151-17, 2021. (UGC CARELIST) <https://scisage.info/index.php/JASR/article/view/1112>
7. Synthesis, X-ray crystallography, Hirshfeld Surface, Energy Framework Analysis of two imidazole derivatives, Journal of Advanced Scientific Research, 12(1), 2, 150-158, 2021. (UGC CARELIST) <https://doi.org/10.55218/JASR.202112119>
8. Synthesis, Crystal Structure, Hirshfeld Surface, Energy Framework Analysis of a tetraphenyl benzene, Journal of Advanced Scientific Research, 12(1), Suppl 2, 44-50, 2021.(UGC CARELIST) <https://doi.org/10.55218/JASR.s12021121sup217>
9. Synthesis Of Nanocrystalline Nickel-Iron Alloys-A Novel Chemical Reduction Method, Chemical Physics Impact, 6, 100202, 2023. (UGC CARELIST-SCOPUS INDEXED) <https://doi.org/10.1016/j.chphi.2023.100202>

10. Structural Elucidation, Hirshfeld Surface and Energy Framework Analysis of a Benzene Sulfonamide Derivative, Indian Journal of Natural Sciences, 14, 78, 56080-56089, 2023. (UGC CARE LIST - WEB OF SCIENCE INDEXED)
<https://tnsroindia.org.in/journals.html>

11. Silica Coating of Nickel-Iron Nanocomposite by Chemical Reduction Method, Journal of Molecular and Engineering Materials, 13, 1, 2440019, June 2024 (UGC CARE LIST - WEB OF SCIENCE INDEXED) <https://doi.org/10.1142/S2251237324400197>

12. Structural and computational insights into a benzene sulfonamide derivative: Hirshfeld surface, energy framework, optical, NBO, electronic and biological properties, Journal of Molecular Structure, 1330, 141347, January 2025. (UGC CARELIST-SCOPUS INDEXED).
<https://doi.org/10.1016/j.molstruc.2025.141347>

6. CITATION INDEX :



7. DETAILS OF PROFESSIONAL DEVELOPMENT PROGRAMMES ATTENDED :

Name of the Faculty	Type of Program	Duration (in No. of days)	start Date and end date	Name of the Organising Institution
Dr.G.Dhanalakshmi	Faculty Induction Programme	28	07.11.2024 to 04.12.2024	UGC- Malaviya Mission Teacher Training Centre, Madurai Kamaraj University

8. LIST OF CONFERENCES /WORKSHOPS PARTICIPATED / PRESENTED:

S.No	Conference, Seminar, Workshop and Webinar	Name Of The Institution	Title	Date
1	National Conference	Easwari Engineering College	4 th National Conference on Materials for Modern world (NCMMW – 2018)	14/9/2017
2	International Conference	Department of crystallography and BioPhysics, University of Madras	International Symposium on crystallography and advanced materials (ISCAM 2018)	26/03/2018 to 27/3/2018
3	National Conference	Easwari Engineering College	5 th National Conference on Materials for Modern world (NCMMW – 2018)	18/9/2018 to 19/9/2018

4	International Conference	SSN College of Engineering	International Conference on Mathematical Methods, Modeling and Simulation in Chemical Sciences	6/12/2018 – 8/12/2018.
5	International Conference	The New College	Recent advancement in materials science (NewPhy2020)	21.1.2020
6	International Conference	Mannar Thirumalai Naicker College	International Conference on Frontiers in Chemistry and Material Science (ICFCMS-21)	22.12.2021
7	International Conference	SSN College of Engineering	International Conference in crystal growth and techniques	10.1.2022 to 12.1.2022.
8	National Conference	Karpagam Academy of Higher Education	Advanced materials and its applications	5/5/2022 to 6/5/5 2022
9	International workshop	Global Institute of statistical solutions	Academic Writing-Ethical issues	18/6/2022 - 20/6/2022
10	National workshop	SRM Institute of Science and Technology	Sustainable Materials Advances and Applications	22/07/2022
11	International Conference	MannarThirumalai Naicker College	Recent Advancement in material science and its applications	11.01.2023 to 12.1.2023

12	International Conference	Seethalakshmi Ramaswami College, Tiruchirappalli	"Materials Science and Applications" (ICMSA'23)	7/2/2023 – 8/2/2023
13	National workshop	SSN College of Engineering	National Virtual Workshop on Machine Learning: An Ice Breaker Between Materials Research and Data Science	12-4-2023 to 13-04-2023
14	International workshop	Madurai Kamaraj University	Solar Water splitting and Artificial Photosynthesis (SWAP) -2023	05-06-2023 to 07-06-2023
15.	International Conference	Saveetha School of Engineering	Functional Materials and its Application Aspects	7.9.2023 to 8.9.2023
16.	State-level Technical Workshop	Mannar Thirumalai Naicker College	Intellectual Property Rights	16.10.2023 to 17.10.2023
17.	National Conference	Crescent Institute of Science and Technology	National Conference on Functional Materials for Sustainable Energy and Information Technology	27.11.2023 to 28.11.2023
18.	International Conference	The American College	International Conference on Advances in Chemistry (ICAC-2023)	4.12.2023 to 5.12.2023

19	International Conference	Seethalakshmi Ramaswami College, Tiruchirappalli	2 nd International Virtual Conference on Materials Science and Applications” (ICMSA’24)	1.2.2024 to 2.2.2024
20	International Conference	Saraswathi Narayanan College	International Conference on Advances in Smart Materials -2024	9.8.2024
21	National Conference	EASWARI ENGINEERING COLLEGE (AUTONOMOUS), CHENNAI	NATIONAL CONFERENCE ON EMERGING TRENDS IN ENERGY APPLICATIONS	11-03-2025
22	National Conference	Mannar Thirumalai Naicker College Madurai	National conference on Advances in Applied Mathematics and IKS	28-02-2025
23	International Conference	The Madura College, Madurai	International Conference on Advancements in Theoretical, Experimental and observational Physics (ATEOP-2025)	11-03-2025

9. LIST OF FDP /WORKSHOPS/WEBINARS PARTICIPATED

S.No	Title of the Programme	Name of the Institution/University	Month and Year
1.	Growth, Characterisation of NLO materials and Spectroscopic Studies	Mohamed Sathak AJ College of Engineering	10.6.21 to 12.6.21

2.	Astronomical Studies	Jamal Mohamed College	7.2.2022 to 8.2.2022
3.	INTELLECTUAL PROPERTY RIGHTS	Jamal Mohamed College	9.2.2022
4.	Enhancing Quality by unearthing innovative practices –EQUIP 2022	MannarThirumalaiNaicker College	18.4.2022 to 24.4.2022
5.	Education 4.0 for sustainable Economic Development	MannarThirumalaiNaicker College	27.4.2022
6.	Recent trends in applied Physics	Easwari Engineering College	25.7.2022 to 30.7.2022
7.	Current scenario in advanced materials research and Nanotechnology	RajapalayamRajus College	14.11.22 to 18.11.2022
8.	Dynamics of Research Publications	MannarThirumalaiNaicker College	15.9.2022 to 16.9.2022
9.	Insights of National Educational Policy (NEP 2020)	MannarThirumalaiNaicker College	18.3.2023
10.	Quantum Computing using Indigenous Quantum Simulator QSim	IIT Roorkee and Centre for Development of Advanced Computing Hyderabad	6.5.2023 to 28.5.2023
11.	Recent Trends in Science and Technology	Mohamed SathakA.J.College of Engineering	17.7.2023 to 21.7.2023

12.	Impact of Quantum dots on Engineering	SRM Madurai College for Engineering and Technology	23.10.2023
13.	Recent Advancement in Smart Materials for Sustainable Energy applications	Sathyabama Institute of Science and Technology	20.10.2023 to 25.10.2023
14	Essentials of Report Writing using MS Word	UGC – Malaviya Mission Teacher Training Centre, Madurai Kamaraj University	24.02.2024.
15	Research and Development	UGC – Malaviya Mission Teacher Training Centre, Madurai Kamaraj University	2.03.2024.
16	Sustainable Nanomaterials Engineering for Environmental Applications	Centre for Nanotechnology, Indian Institute of Technology, Guwahati	22.4.2024 to 26.4.2024
17.	Workshop on Molecular Modelling of Nanomaterials and Biomolecules	PG & Research Department of Physics, Holy Cross College (Autonomous), Tiruchirappalli	5.9.2024 to 9.9.2024
18	FDP on Multidisciplinary Approach on NanoTechnology	Department of Chemistry Vellalar College For Women (Autonomous), Coimbatore	23.9.2024 to 27.9.2024

19	Workshop on “Nanostructured Optoelectronic Materials for future Technologies (NOMFT-2025)	National Institute of Technology, Warangal.	04-03-2025
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10.OTHER ACTIVITIES

S.No	Title	Place	STUDENTS FROM	Date
1.	Faculty And Student Exchange Programme	MannarThirumalai Naicker College (Autonomous)	V.V.Vanniaperumal College For Women	12.10.2022 TO 17.10.2022
2.	Faculty And Student Exchange Programme	V.V.Vanniaperumal College For Women	V.V.Vanniaperumal College For Women	21.2.2023

11.CONFERENCES / SEMINARS / WORKSHOPS ORGANIZED:

S.No	Level	Title	Role Played	Date	Funding
1.	National	National Science day Celebration	Co-ordinator	21.12.2022 & 22.12.2022	TNSCST and Indira Gandhi Centre for Atomic Research(IGCAR)
2.	International	International Conference on Emerging trends in Physics, Energy Storage Materials and	Co-Convenor	3.2.2025 & 4.2.2025	Mannar Thirumalai Naicker College

		Nanotechnology (ICEPEN 2025)			
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12.Resource Person:

Dates	Name of the Programme	Title of the Lecture/ Keynote Address	Name of the host Institution
30.-09-2024	Guest Lecture	Achievements of Women scientists & Women empowerment	Arul Anandar College (Autonomous),Karumathur

13.OTHER DISTINCTION:

➤ Reviewer

- Advanced Materials Research (AMR),
- Nano Hybrids and Composites (NHC)
- Materials Science Forum (MSF)

➤ Question Paper setter for various institutions and universities

OTHER RESPONSIBILITIES IN INSTITUTION

- Criterion 1 Member
- Attendance Committee – Convenor
- Science and Communication Club -Member
- Internship Cell -Member
- Library Stock Verification -Member
- Furniture Stock Verification- Member