



PROFILE

NAME : **Dr. A. CLARA DHANEMOZHI**
DESIGNATION : Associate Professor
Department : PHYSICS
DOB : 23-10-1968
Date of Appointment : 6-7-1992

ACADEMIC

Degree	University	Year of completion
B.Sc	Sree Sevugan Annamalai college, Devakottai	1988
M.Sc	Fatima college, Madurai	1990
B.Ed	Annamalai University, Chidambaram	1991
PGDCA	St.Joseph's college, Trichy	1991
M.Phil	Mother Teresa Women's University , Kodaikanal	2007
Ph.D	Mother Teresa Women's University , Kodaikanal	2014

Total Experience: UG - 23 yrs, PG – 10yrs, M.Phil-1yr

SPECIALISATION : 1. **THIN FILM NANOMATERIALS**
2. **SOLAR ENERGY**

ACADEMIC AFFILIATION:

- 1.NSS Programme officer (2009-2012)
2. Dean of students(2012-2015)
- 3.IQAC co-ordinator (from 2015)

PROFESSIONAL AFFILIATION

1. Member of the UGC capacity building of women managers in Higher Education
2. Reviewer for IACCEE & IIE Proceedings and Journals
3. Served as an expert for the NAAC mock visit to Annai Velankanni College, Tholayavattam, on 1st & 2nd December, 2016.
4. Reviewer for a paper in the Journal Green Chemistry Letters and Journal of Fullerenes, Nanotubes and Carbon Nanostructures
5. Editorial board member of American Journal of Materials Synthesis and Processing

RESEARCH EXPERIENCE

Guideship Details

Approved guide for Mother Teresa Women's University, Kodaikanal from May, 2015.

1. Ph.D (Guiding) - 3
2. M.Phil (Completed) - 6
3. M.Phil (Guiding) - 1

Name	Reg.No &Date	Topic	Status
Mrs. V. Joancily Prema	PHDPHY16F478 23-06-2016	Fabrication of Crumpled Graphene based Nanohybrids for Energy Applications	Pursuing
Ms. T. Nithya	PHDPHY16P480 5-7-2016	3DGrapheneFoam/V2O5 Nanostructures for Energy storage Applications	Pursuing
Mrs. N. Sumathi			

PROJECTS COMPLETED

Year	Funding agency	Topic	Amount in Rs.
2006-08	UGC	State of the Art Solar Air Heater	65,000
2014-	UGC	Green synthesis of Gold Nanoparticle with citrus	4,50,000

Research Publications:

Published research paper on

1. **Fabrication and study of Dye sensitised solar cell using Perilla Frutescens Extract** *A. Anitha , A. Clara Dhanemozhi*
Indian Journal of Applied Research(UGC no. 49333), May, 2019vol.9, Issue 5, ISSN: 2249-555X
2. **Study of Dye sensitized solar cell using Mirabilis Jalapa Flower Extract** *M. Murugalakshmi, A. Anitha, A. Clara Dhanemozhi*
Elsevier's Materials Today: Proceedings vol.8 P.no. 271-278,2019
3. **Fabrication of Dye sensitized solar cells by the plasmonic effect of silver nanoparticles and Basella Alba dye**
N. Bagavathi, A. Clara Dhanemozhi
Elsevier's Materials Today: Proceedings vol.8 P.no. 357-361,2019
4. **Polymer based solar cell with Beetroot dye and Cadmium Telluride Quantum dots** *S. Maria Steffi, A. Clara Dhanemozhi*
5. **Construction and Performance study of Solar lights using Microcontroller** *A. Clara Dhanemozhi , S.Sivaranjani, M.V.Joancily Prema, G.Bagavathi* International Research Journal of Engineering and Technology, Volume: 04 Special Issue: 09 | Sep -2017, ISSN: 2395 -0056
6. **Synthesis and characterization of ZnS_xSe_{1-x} films using Brush plating technique**

- A. Clara Dhanemozhi, Rita John, K.R Murali*
Elsevier's Materials Today: Proceedings, Volume 4 (2017) 5185-5189, indexed by Scopus
7. **Synthesis and characterization of Dye Sensitized Solar Cell using Fruit Extracts**
S.Iswariya, A.Clara Dhanemozhi, and S.Yugamica
International Research Journal of Engineering and Technology, Volume: 04 Issue: 02, Feb -2017, ISSN: 2395 -0056
 8. **Synthesis and characterization of MnO₂/rGO nano composite for super capacitors**
S.Yugamica, A.Clara Dhanemozhi, S. Iswariya
International Research Journal of Engineering and Technology, Volume: 04 Issue: 02, Feb -2017, ISSN: 2395 -0056
 9. **Synthesis and characterization of graphene-zinc oxide Nanocomposite electrode material for supercapacitor applications**
V. Rajeswari, R. Jayavel, A. Clara Dhanemozhi
Elsevier's Materials Today: Proceedings, Volume 4 (2017) 645–652, indexed by Scopus
 10. **The Fabrication of Natural Dye Sensitized Solar Cell (Dssc) based on TiO₂ Using Henna And Beetroot Dye Extracts**
S.Sathyajothi, R. Jayavel, A. Clara Dhanemozhi
Elsevier's Materials Today: Proceedings, Volume 4 (2017) 668–675, indexed by Scopus
 11. **Green Synthesis of Zinc Oxide Nanoparticle Using Green Tea Leaf Extract for Super capacitor Application**
A.Clara Dhanemozhi, V. Rajeswari, S.Sathyajothi
Elsevier's Materials Today: Proceedings, Volume 4 (2017) 660–667, indexed by Scopus
 12. **Green synthesis of Gold Nanowires and Gold Nanoparticles and its applications**
A. Clara Dhanemozhi
International Journal of Nanotechnology and Application (IJNA) ISSN (P): 2277-4777; ISSN (E): 2278-9391 Vol. 6, Issue 4, Oct 2016
 13. **Green synthesis of Silver Nanoparticles using Papaya Extract and its antibacterial activities**
S. Mariasteffi, M. Rajeswari, A. Clara Dhanemozhi, A. Parimalarani
International Journal for Resesarch in Science, Engineering and Technology-vol.3, special issue ISSN 2394-739X , Septomber, 2016
 14. **Nurturing Christian values among students in Catholic Colleges**
A. Clara Dhanemozhi, C. Mary Anbarasi
New Frontiers in education-An International journal for Education and Research, April-June 2016.
 15. **Professional Development of Teachers**
A. Clara Dhanemozhi, C. Mary Anbarasi
JAC Journal of Humanities and Social Sciences, December, 2016
 16. **Influence of ICT Enabled Teaching and Learning**
A. Clara Dhanemozhi, C. Mary Anbarasi

JAC Journal of Humanities and Social Sciences, December, 2016.

17. Facile Synthesis of Vanadium(III)oxide and their Electrochemical Properties for Supercapacitor Applications

S. Sivapratha, A. Clara Dhanemozhi

JAC Journal of Humanities and Social Sciences, December, 2015

18. The Need for Skill Development in Higher Educational Institutions

T. Nirmala, A. Clara Dhanemozhi, C. Mary Anbarasi

New Frontiers in education-An International journal for Education and Research ,
October-December 2015

19. Green Synthesis of silver nanoparticle with Rose extract for antimicrobial Applications

S.Nithya & A.Clara Dhanemozhi

International journal of Engineering Science & Management, vol.1 no.2, ISSN 2454-4140,pp 212-215, 2015

20. Contribution of Women as Scientists in India

A. Clara Dhanemozhi

Social science International journal, vol.1, no.2, ISSN 2394-1537, March, 2015.

21. Synthesis and Characterization of Gold Nanoparticles with Citrus Fruit Extracts *A. Clara Dhanemozhi & D. Chitra*

International journal of Metallurgical & Materials Science and Engineering (IJMMSE),ISSN(P):2278-2516; ISSN(E): 2278-2524 , Vol.5. No.3. June 2015 (IF:3.3529), Index Copernicus Value (ICV): 3.0

22. Projectile Motion using MATLAB

A. Clara Dhanemozhi

International journal of Science, Technology & Management, vol.4, no.2, ISSN 2394-1537, March, 2015(IF:1.011)

23. Effective Management of Institutions with Information and communication Technology

A. Clara Dhanemozhi

Journal of Academia and Society, vol.1, no.1, ISSN 2393-8919, October, 2014

24. Detection of Brain Tumour in MR images using

Matlab *A.Clara Dhanemozhi I, D. Chitra, V. Rajeswari*

International journal of Applied Information science and Technology”,
vol.29,no.29,September 2014.(Impact factor: 3.564)

25. Reverse Absorber solar air heater with evacuated tubes

A.Clara Dhanemozhi I, V. Rajeswari

International Journal Renewable Energy and Environmental Engineering ,ISSN :2348-0157, vol.2,No.3, July,2014(IF: 4.052)

26. State of the art solar air heater using evacuated tubes

A. Clara Dhanemozhi

International Journal of chemical, Engineering and Energy Vol.1,No.1, July,2013.

27. The Role of Christianity in Higher Education in

Tamilnadu *A. Clara Dhanemozhi*

Christuva Tamizh Thondu, August 2014, ISBN : 978-81-7735-771-4

28. **Comparison on the efficiencies of solar air heater**
A. Clara Dhanemozhi & R. Umarani
International journal of applied Bioengineering, Vol. 7 No. 1 January 2013
29. **Solar Air Heater for commercial applications** *A. Clara Dhanemozhi*
Journal of Modern Science published by the Tamilnadu State Council for Higher education Vol-3 , Feb 2011
30. **Telerobot for Detective Applications**
A. Clara Dhanemozhi, X. Sudha,
Journal of Lab Experiments Vol-10, No.2, June 2010
31. **Brush plated ZnS films and their properties**
K. R. Murali, A. Clara Dhanemozhi, Rita John
International journal of Alloys and Compounds vol.464, Sep 2008, p. no. 383-386
32. **Structural, Optical and Electrical properties of ZnSe Thin films**
K. R. Murali, A. Clara Dhanemozhi, Rita John
Chalcogenide Letters , Vol. 5, Nov. 2008, P. No. 277-280

PAPER PRESENTATIONS: (INTERNATIONAL)

1. **Comparison on the Efficiencies of Solar Cells Using Organic Dyes** in the International conference on Nanoscience and Nanotechnology (ICONN 2017) at SRM University, Chennai from 10th -11th August, 2019.
2. **Dye Sensitized Solar Cell using Mirabilis Jalapa Flower Extract** in the International conference on Materials for Energy and Environment at Loyola college, Chennai on 22nd and 23rd February, 2018.
3. **Fabrication and Study of Dye Sensitized Solar Cell using Perilla Foliage Extract** in the India-UK International Conference on Advanced Nanomaterials for Energy, Environment and Healthcare Application, at K.S.R. College of Arts and Science for Women, Tiruchengode, on 31st August & 1st September, 2018
4. **Efficiency of Solar Cells with the plasmonic effect of silver nanoparticles and Basella Alba Dye Extract** in the International conference on Innovative Applied Energy-2019 at Oxford, United Kingdom, from 12th to 14th March, 2019.
5. **Polymer based solar cell with the extract of beetroot dye and Cadmium telluride quantum dots”,** in the International conference on Nanoscience and Nanotechnology, at SRM university from 9th – 11th August, 2017.
6. **Comparison on the Efficiencies of Solar Cells Using Organic Dyes”,** in the International conference on Nanoscience and Nanotechnology, at SRM university from 9th – 11th August, 2017.
7. **Poymer Based Dye Sensitized Solar Cell using Basella Alba Fruit Extract”** in the International conference on Nanoscience and Nanotechnology, at SRM university from 9th – 11th August, 2017
8. **Synthesis and characterization of graphene-zinc oxide Nanocomposite electrode material for supercapacitor applications”** in the 5th International Conference on Materials Processing and Characterization (ICMPC 2016), at GRIET, Hyderabad, from 12th-13th March, 2016.
9. **Green Synthesis of Zinc Oxide Nanoparticle Using Green Tea Leaf Extract for Supercapacitor Application** in the 5th International Conference on Materials

- Processing and Characterization (ICMPC 2016), at GRIET, Hyderabad, from 12th-13th March, 2016.
10. **The Fabrication of Natural Dye Sensitized Solar Cell (Dssc) based on TiO₂ Using Henna And Beetroot Dye Extracts**”, in the 5th International Conference on Materials Processing and Characterization (ICMPC 2016), at GRIET, Hyderabad, from 12th-13th March, 2016.
 11. **Synthesis and characterization of ZnS_xSe_{1-x} films using Brush plating technique** in the 6th ICMPC, at Victoria University, Australia from 5th – 7th December, 2016
 12. **Contribution of women as Scientists in India** in the **International conference on Women Empowerment & Social Sciences -2015** at The American college, Madurai from 5th – 7th March, 2015.
 13. **Projectile motion using MATLAB** in the International conference on Recent Trends in Engineering Science & Management at Jawaharlal Nehru University, New Delhi on 15th March, 2015.
 14. **Detection of Brain Tumour using MATLAB** at Jayaraj Annapackiam college for women, Periyakulam, on 17th September, 2014.
 15. **Green synthesis of Gold nanoparticles with fruit extracts** in the 3rd world conference on Applied Sciences, Engineering technology at **Kathmandu, Nepal** from 27th – 29th September, 2014.
 16. **Comparison of the efficiencies of the solar air heater** in the International conference on Solar Energy in the Department of Nanoscience and Nano technology, Satyabama University, Chennai on 1st Feb., 2013.
 17. **The Role of Christianity in higher Education** in the International conference at Jayaraj Annapackiam College for women, Periyakulam on 12th August, 2013.
 18. **State of the art solar air heater using evacuated tubes** in the International chemical, Engineering and Energy conference at **Kuala Lumpur, Malaysia** from 21st – 23rd December, 2012
 19. **Solar Air Heater for commercial applications** in the SOLARASIA 2011 conference at the Institute of Fundamental Studies, **Kandy, Srilanka**, from July 28th – 30th, 2011.
 20. **Structural, Optical and Electrical properties of ZnS_xSe_{1-x} thin films** at Kalasalingam university, Krishnankoil from 4th – 5th March, 2011
 21. **Structural, Optical and Electrical properties of ZnS_xSe_{1-x} thin films** at Gitam university, Vishakapatnam from 17th -19th December, 2010.
 22. **Brush plated ZnSe films and their properties** at Thiagaraja College of Engineering, Madurai from 7th-9th January, 2009.
 23. **Brush plated ZnS films and their properties** at Mother Teresa Women’s University, Kodaikanal from 27th -29th February, 2008.

PAPER PRESENTATIONS(National)

1. **Construction of Solar Cells Using Organic Dyes** in the conference on Advanced Materials at St. Joseph’s College, Trichy on 14th & 15th Dec., 2017.
2. **The Role of Teachers in creating Excellence** in the Round Table Discourse on The Present Context of Higher Education Impacting Universities and Colleges: Preparing For High Quality Initiatives at CHRIST (Deemed to be University), Bengaluru from 15th to 17th March, 2018.
3. **Professional Development of Teachers** at Jayaraj Annapackiam college on 29th & 30th September, 2016
4. **Nurturing Christian values among students in catholic Colleges**” at Christ University, Bengaluru, on 10th May, 2016.

5. **The Need for Skill Development in Higher Education in India** at Arul Anandar college, Karumathur on 22nd & 23rd March, 2016
6. **Comparison of the Efficiencies of evacuated Tube Solar Air heaters** at Arulmigu palaniandavar college for women, Periyakulam, on 25th March, 2015
7. **Progress of Women as Scientists in India** at Jayaraj Annapackiam college for women, Periyakulam from 28th & 29th January, 2015
8. **Green synthesis of Silver nanoparticles with Rose extract for Mosquito Repellent Applications** at Jayaraj Annapackiam college for women, Periyakulam from 8th & 9th January, 2015
9. **Novel Type solar air heater for Commercial Products** at K.L.N college of Engineering, Madurai from 18th – 19th September, 2014
10. **Synthesis of Gold nanoparticles using citrus fruits** at St. Joseph's college, Tiruchirappalli on 24th February, 2014.
11. **Projectile motion with and without air resistance using MATLAB** at Jayaraj Annapackiam college for women, Periyakulam from 6th & 7th February, 2014.
12. **Green synthesis of Gold nanoparticles using citrus fruits** at Jayaraj Annapackiam College for women, Periyakulam from 6th & 7th February, 2014.
13. **Optical and Electrical properties of ZnSxSe1-x thin films** at Jayaraj Annapackiam college for women, Periyakulam from 5th & 6th February, 2013.
14. **Studies on the properties of Brush plated ZnSxSe1-x thin films** at A.V.C. College, Mayiladuthurai on 8th & 9th March, 2012.
15. **Properties of ZnSe Thin Films** at Jayaraj Annapackiam college for women, Periyakulam from 23rd-24th March, 2009
16. **Effective Management of Institutions with communication and information technology** at Jayaraj Annapackiam college for women, Periyakulam, on 19th & 20th December, 2007.

SEMINARS/CONFERENCES (Attended)

Attended the

1. One day Seminar on Energy Conservation in collaboration with and sponsored by Petroleum Conservation Research Association on 30th September 2019.
2. International conference on Innovative Applied Energy-2019 at Oxford, United Kingdom from 12th-14th March, 2019.
3. International conference at the Institute of Fundamental Studies, Kandy, Srilanka, from July 28th – 30th, 2011.
4. International chemical, Engineering and Energy conference held at Kuala Lumpur, Malaysia from 21st – 23rd December, 2012
5. International conference on the **“Role of Christianity in Tamil”** organized by the Department of Tamil at Jayaraj Annapackiam college for women, Periyakulam on 12th August, 2013.
6. National conference on **“value Education”** organized by NBCLC, Bangalore, from 2nd – 9th May, 2011.
7. National conference organized by the Department of Physics, A.V.C College, Mayiladuthurai on 9th March, 2012.

8. National seminar on “Applications of Spectroscopy in materials characterization” organized by the Department of Physics, Fatima college, Madurai on 22nd August, 2012.

8. UGC sponsored “**SAM National workshop**” at Madras university, Chennai.(10th – 14th Jan, 2013)
9. Counseling workshop organised by “ANUGRAHA” at Jayaraj Annapackiam college from 13th June-2013.
10. Counseling workshop organised by “ANUGRAHA” at Jayaraj Annapackiam college from 13th June-2013.
11. Faculty Training programme in Entrepreneurship” organised by Mother Teresa Women’s University, Kodaikanal from 3rd-7th September 2013.
12. Workshop on “**Image Processing using MATLAB**” at Madurai From 16th -17th August, 2013.
13. Workshop on “**Curriculum Development**” organised by Mother Teresa Women’s University, Kodaikanal at Jayaraj Annapackiam college on 13th November, 2013.
14. National workshop on “KAUSHAL KENDRA-An Introduction and clarifications” organised by Lady doak community college, Madurai & ICRDCE, Chennai, on 14th March, 2015.
15. National conference on Quality Enhancement in Higher Education: Teaching, Learning and Evaluation on 7th & 8th January, 2016, at St.Mary’s college, Tuticorin
16. National conference on Academic Audit and Quality Enhancement in HEI’s on 22nd & 23rd March, 2016, at Arul Anandar college, Karumathur
17. A three day National workshop on Transformative Leadership to meet the Challenges in Higher Educational Institutions at Loyola college, Trivandrum, from 10th – 12th February, 2017
18. A three day National workshop on “The Idea of a National University” at Christ University, Bengaluru from 26th-28th July, 2017.

RESOURCE PERSONS

1. R+hpa xspapd; gad;ghLfs in the NSS Special Camp at Govt. Hr. Sec. School, Thamaraikulam, 22nd November, 2018
2. **Women and Science in the association meeting** at N.S. college, Theni on 18th August, 2016
3. Solar energy and its Applications in the RGNYID sponsored National conference on **Environmental Issues and Challenges for Sustainable Development** on 17th February, 2016
4. **Solar Energy Applications** in the one day workshop for rural school children at E. Meenatchipuram Panchayat union middle school on 18th February, 2014.
5. **Women & Science** at The Little Kingdom senior school on 19th December, 2013.
6. Appointed as judge for the interschool science exhibition at Presentation school, Theni on 21st November, 2013.
7. **The Role of women in Science** in the NSS interdistrict personality development workshop at MaryMatha School, Theni on 23rd February, 2013.
8. **The fascination of Light** in the Regional workshop at Shrimati Indira College for Women at Tiruchirapalli 10-02-2012.
9. **Applications of Nanomaterials** at Shrimati Indira College for Women at Tiruchirapalli on 19-9-2011.

10. **Recent applications of Radiofrequency in Agro Industries** in the Tamilnadu Horticultural University, Periyakulam on 22-08-2011.
11. **VEDIC MATHEMATICS** in the N.S.S special camp at Jallipatti on 18-11-2010.
12. **ENERGY FOR FUTURE** in the N.S.S meeting on the Renewable Energy Day at Jayaraj Annapackiam college for women, Periyakulam on 26-07-2009.
13. **Biometrics** at Arul Anandar College, Karumathur on 16-9-2009.
14. **Nanotechnology** in the “**PHY-MAT**” association inauguration at Sri Adi Chunchangiri College for Women, Cumbum on 11-9-2009.
15. **Nanotechnology** in the Students Awareness Science programme at Jayaraj Annapackiam college for Women, Periyakulam from 29-6-2009 to 3-7-2009.

Workshops Organised

1. **Convener** of the CSIR sponsored national conference on “Recent Trends in Advanced Materials” from 6th to 7th February, 2013
2. **Co-ordinator** of the programme “ASTRA- Application of Science and Technology for Rural Areas” sponsored by Tamilnadu state Council for Science & Technology (TNSCST) and organised 5 one day workshops from February – March, 2014.
3. **Convener** of the UGC sponsored national workshop on E-content development for Effective Teaching and Learning from 11th-13th September, 2015
4. **Convener** of the NAAC sponsored National conference on “Quality Assurance and Sustenance in Higher Educational Institutions: Issues and Challenges” from 29th – 30th September, 2016
5. Convener of the National conference on **Environmental Issues and Challenges** sponsored by Rajiv Gandhi National Institute of Youth Development, Chennai, from 15th – 17th February, 2016
6. Chief Invigilator for **TNPSC Group-IIA Examinations** on 24th January, 2016

Honours/ Awards

1. Best Academic researcher Award -2019 by DK international Research Foundation, Perambalur
2. Academic Leadership Award-2018 by IARDO & Gokul Institute of Engineering and Technology, Kota
3. Appreciation certificate for my outstanding service as reviewer by IIE and IACCEE for the year 2015
4. Findings on the project “Reverse Absorber for Solar Air Heater “ done under my guidance is being incorporated in the manufacturing of solar applications company **VIVUNES**, Chennai
5. Under my guidance, 4 Post Graduate students have received funding for their project by Tamilnadu state Council for Science & Technology (TNSCST).
6. The project guided by me got I prize in the state level Youth Science festival held at Arul Anandar college and received the appreciation certificate.

Contact Details:**Present Address**

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Jayaraj Annapacakiam college for women,
Periyakulam.
Phone: 04546-231482(off)

Permanent Address

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Sowdeswari Nagar,
P.C. Patti, Theni

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