

PROFILE



Name : Dr. A. JEGATHA CHRISTY
Designation : Assistant Professor
Department : PHYSICS
Date of Birth : 05.03.1984
Date of Appointment : 18.06.2014

Academic

S. No.	Degree	University/Institution	Year of Completion
1.	B.Sc.	Jayaraj Annapackiam College for Women, Periyakulam	2004
2.	M.Sc.	Fatima College, Madurai.	2006
3.	PGDCA	Manipal Institute of Computer Education.	2006
4.	M.Phil.	Mother Teresa Women's University, Kodaikanal.	2007
5.	Ph.D	Mother Teresa Women's University, Kodaikanal.	2013

Total Experience

: UG - 10 Years
PG – 10 Years,
M.Phil. - 5 Years

Area Specialization/Interest

: Nanomaterials, Spectroscopy

Academic achievements :

Academic Affiliation:

- ☺ Fine Arts Coordinator (2019- till date)
- ☺ IQAC Staff in charge (2015- till date)
- ☺ OSA Staff in charge (2014- 2017)(2019- till date)
- ☺ Discipline committee (2017- till date)
- ☺ Press and Notice board in charge (2018-19)

Professional Affiliation:

- ☺ Member of the Board of Studies in Physics of Jayaraj Annapackiam College for Women (Autonomous), Periyakulam since 2014
- ☺ Member of the Board of Studies in Physics of Mother Teresa Women's University, Kodaikanal during 2018-'19
- ☺ Member of the Board of Studies in Physics of Fatima College, Madurai during 2018-'19

RESEARCH EXPERIENCE

Projects undertaken

Minor Research Project

Title of the Project : Tailoring the Surface morphology of metal oxide nanoparticles and its influence on dye effluent treatment

Funding Agency : UGC

Period : 2017-2019

Amount Sanctioned : Rs. 4,90,000/-

RESEARCH GUIDANCE

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Approved Guide of Mother Theresa Women's University, Kodaikanal for Ph. D Physics from July 2017.

M.Phil.(guided) – 3

PUBLICATIONS

1. M.Umadevi, **A. Jegatha Christy**, Preferential Solvation of Acridine in binary mixtures, *Spectrochimica Acta part A* 71 (2008) 773-778.
2. **A. Jegatha Christy**, M. Umadevi, Synthesis and characterization of mono dispersed Silver nanoparticles, *Adv. Nat. Sci: Nanosci. Nanotechnol.* 3 (2012) 035013
3. **A. Jegatha Christy**, M. Umadevi, Novel combustion method to prepare octahedral NiO nanoparticles and its photocatalytic activity, *Materials Research Bulletin* 48 (2013) 4248–4254
4. M.Umadevi, **A. Jegatha Christy**, Optical, structural and morphological properties of Silver nanoparticles and its influence on the photocatalytic activity of TiO₂, *Spectrochimica Acta Part A* 111 (2013) 80-85
5. M.Umadevi, **A. Jegatha Christy**, Synthesis, Characterization and Photocatalytic Activity of CuO Nano Flowers, *Spectrochimica Acta Part A* 109 (2013) 133-137
6. **A. Jegatha Christy**, L.C. Nehru, M. Umadevi, A novel combustion method to prepare CuO nanorods and its antimicrobial and photocatalytic activities, *Powder Technology* 235 (2013) 783-786
7. **A. Jegatha Christy**, M. Umadevi, Synthesis, Characterization and Photocatalytic activity of ZnO nanoflakes, *Journal of Nano Energy and Power Research* 2 (2014) 1-7
8. **A. Jegatha Christy**, A. Kevin , L.C. Nehru , M. Umadevi, Optical, Structural and morphological properties of Silver nanoparticles and their antimicrobial activity, *International Journal of ChemTech Research*, 2015,
9. **A. Jegatha Christy**, M. Umadevi, [Solvatochromic Spectral Investigations of Acridine](#), *International Journal of ChemTech Research*, 2016, Vol.8, No.7, pp 383-390.
10. R. Jamuna, **A. Jegatha Christy***, Rapid solution combustion synthesis of NiO Nanostructures: Characterization and Evaluation of antibacterial activity, *International Research Journal of Engineering and Technology*, Volume: 04 Special Issue: 09 | Sep - 2017, pp205-209
11. D. Hariharan , **A. Jegatha Christy** , Jeyanthinath Mayandi , L.C. Nehru, visible light Photocatalyst: Hydrothermal green synthesized TiO₂ NPs for degradation of Picric acid *Materials Letters* 222 (2018) 45-49
12. R. David Prabu, S. Valanarasu, H. A. Herisalin Geno, **A. Jegatha Christy**, K.Jeyadheepan, A. Kathalingam, Effect of Neodymium doping on the structural, morphological, optical and electrical properties of copper oxide thin films, *Journal of Materials Science: Materials in Electronics*, July 2018, Volume 29, [Issue 13](#), pp 10921–10932

13. A. Rohini Devi, **A. Jegatha Christy**, K. Deva Arun Kumar, S. Valanarasu , Mohamed S. Hamdy, K. S. Al-Namshah, Abdullah M. Alhanash , Dhanasekaran Vikraman, Hyun-Seok Kim, Physical properties evaluation of nebulized spray pyrolysis prepared Nd doped ZnO thin films for opto-electronic applications, *Journal of Materials Science: Materials in Electronics* , Volume 30, [Issue 8](#), pp 7257– 7267 , April 2019
14. D. Hariharan, **A. Jegatha Christy**, Selvakumar Pitchaya, Suresh Sagadevan, P. Thangamuniyandi, U. Deva, L.C. Nehru, Green hydrothermal synthesis of gold and palladium doped Titanium Oxide Nanoparticles for multifunctional Performance, *Journal of Materials Science: Materials in Electronics.*, Volume 30, [Issue 13](#), pp 12812–12819, July 2019.
15. D. Hariharan, P. Thangamuniyandi, **A. Jegatha Christy**, R. Vasantharaja, P. Selvakumar, S.Sagadevan, A. Pugazhendhi, L.C. Nehru, Enhanced Photocatalysis and anticancer activity of green hydrothermal synthesized Ag@TiO₂ nanoparticles, *Journal of Photochemistry & Photobiology, B: Biology* 202 (2020) 111636.

Publications In Proceedings:

1. Synthesis and Characterization of Silver Nanoparticles (2008) M. Umadevi, A.Jegatha Christy and R.H. Sudha, Proceedings of the International Conference on Materials Science Research and Nanotechnology, ISBN 81-86520-14-7, p. 134-136.
2. Antimicrobial Activity of Copper Nanoparticles (2012) M. Umadevi, A. Jegatha Christy, L.C. Nehru and Ishwarya Devi, Proceedings of the International Conference on Nanomaterials and Applications, ISBN: 978-93-82062-004, p. 113-117.
3. Nanosized Silver Powder Prepared by Solution Combustion Method (2012) L.C. Nehru, A. Jegatha Christy and M. Umadevi, Proceedings of the International Conference on Nanomaterials and Applications, ISBN: 978-93-82062-004, p. 155.
4. Synthesis and Characterization of ZnO nanoflakes (2013) , A. Jegatha Christy , L.C. Nehru , M. Umadevi, International conference on Nanomaterials & Nanocomposites - synthesis, Properties & application.
5. Antimicrobial and photocatalytic activity of combustion synthesized silver, gold, copper and nickel oxide nanoparticles, A. Jegatha Christy , L.C. Nehru ,M.Umadevi, NANOPAPRIKA-POSTER 2012-2nd Virtual Nanotechnology Poster Conference, <http://www.nanopaprika.eu/group/poster2012/page/p12-51>
6. Optical, Structural and morphological properties of Silver nanoparticles and their antimicrobial activity. A. Jegatha Christy, A. Kevin, L.C. Nehru, M. Umadevi.

International Conference on Nanoscience and Nanotechnology-2015 SRM University,
Chennai, India.

Conference Presentations:

International : Paper entitled

- ☐ “Synthesis and characterization of silver nanoparticles towards the application of photovoltaic cells” in International Conference and workshop on New materials and devices for Photovoltaic Applications organized by Department of Materials Science, Madurai Kamaraj University, Madurai on 10-12th Feb 2011
- ☐ “Depletion of Marine Resources & Its Impact on Environment” in International Conference on Environmental Sustainability: Challenges and strategies on organized by Fatima College, Madurai-18. 17th - 18th Feb 2011
- ☐ “Antimicrobial activity of copper nanoparticles” and “Nanosized Silver powder prepared by Solution Combustion Method” in International Conference on Nanomaterials and applications organized by department of Physics, Mother Teresa Women’s university, Kodaikanal. on 28 & 29th Feb 2012
- ☐ “Optical, Structural and Morphological Properties of Silver Nanoparticles and Its Antimicrobial Activity” in the 3rd International Conference on Nanoscience and Nanotechnology (ICONN 2015) organized by SRM University, Chennai on 4th – 6th February 2015.
- ☐ Rapid Solution Combustion of NiO Nanostructures : Characterization and Evaluation of Antibacterial Activity, in the International Seminar on Materials Science and Technology organized by MTWU, Kodaikanal 4th Aug 2017.

National

- ☐ “Solvatochromic computation and spectral Investigations of Acridine” in National Level Workshop on Research Practices in Mathematics and Computer Science organized by Jayaraj Annapackiam College for women, Periyakulam on 3rd August, 2015
- ☐ “Novel combustion method to prepare rice like copper oxide nanoparticles” in the UGC sponsored National Conference on Recent Trends in Physics & Materials Research organized by Jayaraj Annapackiam College for women, Periyakulam on 4th & 5th, February, 2016.
- ☐ “Designing & Development of E- Content” in National Conference on “Quality

Assurance and Quality Sustainance in Higher Educational Institutions: Challenges and Solutions” organized by Jayaraj Annapackiam College for women, Periyakulam on 29th & 30th Sept. 2016

☐ “Synthesis and Characterization of NiO Nanoparticles by Combustion Method” in Nanoscience and Nanotechnologies in the Livelihood Enhancement of Common Man organized

by Department of Physics, Arulanandar College (Autonomous), Karumathur, Madurai on 8th & 9th Feb. 2017

Seminars/conferences/workshops participated:

- ☞ The NSS orientation training programme organized by Avinasilingam University, Coimbatore from 05th to 11th 2012
- ☞ UGC Sponsored International Conference on “Solutions to ecological Challenges : Multidimensional Perspective” at Fatima College, Madurai from 11th – 13th December 2014.
- ☞ State level workshop on Design – Ideation, Creation and Development organized by Department of Fashion Technology, Lady Doak College, Madurai on 27th Feb 2015.
- ☞ One-day National Seminar on Semiconductor Materials and Device Processing for Energy Applications at APA College for Women, Palani on 25th March 2015.
- ☞ Institutional Training programme on Oil Conservation organized by PCRA on 9th September 2015.
- ☞ State level seminar on Nuclear Energy- A Source of Safe, Clean & Green Energy, Organized by the Research Centre of Physics, Jayaraj Annapackiam College for Women, Periyakulam on 27th September 2016.
- ☞ UGC Sponsored National Seminar on Ranking the Research Publications: Citation Analysis, Citation Databases and antiplagiarism organized by the Central Library, J. A. College, Periyakulam on 27th & 28th January 2016.
- ☞ International Workshop on Statistics using Excel and SPSS organized by JAC, 17th -19th Jan 2018.
- ☞ BIG HOPE 2 Youth leaders Congress organized by Liverpool Hope University, Liverpool, United Kingdom during 13th to 20th June 2018
- ☞ IETE Sponsored Two Days National Level Workshop on “Art of writing a report, research paper and Thesis” organized by Department of Electronics and Communication Engineering, Sri Ramakrishna Engineering College, Coimbatore on 13th -14th August 2018
- ☞ Conference on Changing Landscape of Higher Education in India and Impending Challenges organized by Xavier Board of Higher Education in India , Bangalore on 22nd & 23rd September, 2018
- ☞ One-day workshop on “Materials Characterization techniques” organized by Department of Physics & International Research Centre, Kalasalingam Academy of Research and Education, Krishnankoil, 12th Feb 2019.
- ☞ One day Seminar on Energy Conservation in collaboration with and sponsored by Petroleum Conservation Research Association on 30th September 2019.
- ✓ The Counselling Meeting on 25.10.2019 at Mother Teresa Women’s University, Kodaikanal.

Resource Person

1. Guest lecture on “Photocatalytic and antimicrobial investigations of nanoparticles” at Fatima College, Madurai on 29.01.2014

Conferences Organized:

- ✓ Organizing committee member for International conference on Nanomaterials & Nanocomposites - synthesis, Properties & application organized by Department of Physics, Mother Teresa Women’s University, Kodaikanal on 28th -29th 2012.
- ✓ Organizing committee member for International Conference on Material Science Research and Nano Technology organized by Department of Physics, Mother Teresa Women’s University, Kodaikanal
- ✓ Organizing committee member for UGC Sponsored National Seminar on Recent Trends in Physics & Materials Research" at Jayaraj Annapackiam College for Women (Autonomous), Periyakulam
- ✓ **Convener** for UGC Sponsored National Seminar on Recent Advancement in Materials Science on 10th Feb.2017 at Jayaraj Annapackiam College for Women (Autonomous), Periyakulam
- ✓ **Organizing Secretary** for National level conference on “Recent Trends in Physics” at PG and Research centre of Physics, J.A.College for Women, and Periyakulam on 9th February 2018.
- ✓ One day Seminar on Energy Conservation in collaboration with Petroleum Conservation Research Association on 15th Sep 2017.

Awards and Recognition

- ⊕ Chairperson for Paper Presentation session in the UGC Sponsored National Conference on "Recent Trends in Physics & Materials Research" at Jayaraj Annapackiam College for Women (Autonomous), Periyakulam during 04, 05.02.2016
- ⊕ Jury for "Solo Song & Art from Fruits" competitions in "Fine Arts 2k16" at Jayaraj Annapackiam College for Women (Autonomous), Periyakulam on 5th & 16th December 2016 respectively

CONTACT DETAILS

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