



St Thomas College, Kozhencherry

Established in 1953 | Reaccredited by NAAC with Grade A | ISO 9001:2015 Certified | ISO 21001:2018 Certified

Affiliated to Mahatma Gandhi University, Kottayam

www.stthomascollege.info

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Faculty Profile

Dr. Sheeba Anu Jacob

Assistant Professor

Department of Physics

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Personal Details

Date of Birth	09.06.1979
Nationality	Indian
Marital Status	Married
Permanent Address	Ooriyathra Malayil House, 4/216 Theepani, Near Bharat Gas godown, Thiruvalla - 689101, Kerala, India.

Higher Education

2012 – 2016	Ph.D Physics , University of Madras, Chennai.
2001 – 2002	M.Phil Physics , Bharathiar University, Coimbatore.
1999 – 2001	M.Sc Physics , Bharathiar University, Coimbatore.
1996 – 1999	B.Sc Physics , Bharathiar University, Coimbatore.

Professional Position

January 2020 to present	Assistant Professor, Department of Physics, St Thomas College, Kozhencherry
June 2018 to December 2019	Assistant Professor, Department of Physics, Saintgits College of Engineering, Kottayam
June 2008 to May 2011	Assistant Professor, Department of Physics, G.H.Raisoni Institute of Engineering and Technology for Women, Nagpur
September 2005 to December 2006	Assistant Professor, Department of Physics, Karunya University, Coimbatore
June 2003 to August 2005	Assistant Professor, Department of Physics, P.K.R. Arts College for Women, Erode










Teaching Experience

2020 – 2023	Undergraduate and Postgraduate students
2005 – 2019	Undergraduate students









Teaching Experience (continued)

2003 – 2005  Undergraduate and Postgraduate students


Courses Taught

- M.Sc  Electronics
  Statistical Mechanics
  Atomic and Molecular Physics
  Communication Systems
- B.Sc  Nuclear, Particle and Astrophysics
  Electricity and Electrodynamics
  Optics, Lasers and Fibre Optics
  Semiconductor Physics
  Mechanics and Properties of Matter

Professional Service Rendered

- June 2021 till date  Department Staff Secretary, Department of Physics
- AY 2021-'22 till date  Co ordinator, Massive Open Online Course Committee
- AY 2022-'23 till date  Member, Internal Examinations Committee
- 20 September 2021  Co ordinator, World Ozone Day Awareness Webinar, Healing the Hole and Climbing up a Cliff organised by Department of Physics
- 14 July 2020  Co ordinator, Passing through Pandemic, Online Counselling session for the students organised by the Department of Physics
- AY 2021-22  Participated in the Question Bank Upgradation Initiative of Mahatma Gandhi University, Kottayam for IV Sem PGCSS Core Physics
- AY 2020-21  Participated in the Question Bank Upgradation Initiative of Mahatma Gandhi University, Kottayam for III Sem PGCSS Core Physics
-  Additional Examiner, B.Sc. and M.Sc. Degree Examinations held under Mahatma Gandhi University, Kottayam


Awards and Achievements

June 2001  First Rank, M.Sc. Physics

Research Experience

2012-2016  **Research Scholar (Full time)**, Department of Physics, Loyola College, Chennai , affiliated to University of Madras, Chennai. Area of Research: Dye-sensitized Solar Cells

Research Publications

-  **Exploring the consequences of lanthanum incorporation on micro structural, nanoscale morphological and magnetic traits on manganese dioxide nanoparticles.**
Sheeba Anu Jacob, R.Ragu, M.Mary Jaculine, A.Daisy, S.Jerome Das. Journal of Mater.Sci: Mater Electron, Vol. 33, 6856-6871, 2022. ISSN 09574522-1573482X

Research Publications (continued)

- **Studies on solgel synthesized lanthanum doped gamma manganese dioxide nanorods.**
Sheeba Anu Jacob, Jaicy Evanglin Rinu, M.Mary Jaculine, A. Helen Daisy, S.Jerome Das. Int.J. Chem.Tech.Res., 2014, 6(3), 2135-2137. ISSN 0924-4290
- **Effect of Hydrothermal synthesis on the particulate characteristics of nanocrystalline Titanium dioxide.**
Sheeba Anu Jacob, S.Jerome Das. Materials Today: Proceedings, (2016) 3, 1599-1603. ISSN 2214-7853.
- **Effect of reaction parameters on the material properties of highly crystalline anatase titania nanopowders.**
Sheeba Anu Jacob, S.Jerome Das. Int. J. of Innovative Research and Advanced Studies. Volume 3, Issue 8, 272-277, 2016. ISSN 2394-4404
- **Dielectric and cyclic voltammetry behaviour on pure and doped manganese dioxide nanoparticles.**
Sheeba Anu Jacob, Allwin Joseph L., Akilan M., S.Jerome Das. Int. J. of Latest Research in Engineering and Technology. 2017, 112-116, 2016. ISSN 2454-5031
- **Space-charge limited conduction in polyaniline films.**
Prem Nazeer K., Sheeba Anu Jacob, Thamilselvan M., Mangalaraj D., Narayandass Sa. K., Yi J., Polym. Int., 2004, 53, 898-902.

Paper Presentations

- **Dielectric and cyclic voltammetry behaviour on pure and doped manganese dioxide nanoparticles.** International Seminar on Materials Science and its applications (ISMSA - 2016). Mother Teresa Women's University, Kodaikanal. November 25, 2016.
- **Comparative optical bandgap analysis of pure and doped manganese dioxide nanoparticles.** International Conference on Recent Trends in Material Science and applications (ICRTMSA - 2016). Jamal Mohammed College, Trichy. 29th February 2016.
- **Effect of hydrothermal synthesis on the particulate characteristics on nanocrystalline titanium dioxide.** Recent Advances in Nanoscience and Technology (RAINSAT - 2015). Sathyabhama University, Chennai. July 8-10, 2015.
- **Opto-electronic and morphological characteristics of anatase nanocrystalline titanium dioxide nanoparticles.** National Conference on Advanced materials and its applications (NCAMA - 2015). Hindustan University, Chennai. January 29-30, 2015.
- **Studies on solgel synthesized manganese dioxide nanorods.** International Conference on Materials characterization techniques (ICMCT - 2014). VIT University, Vellore. March 10th - 12th, 2014.
- **Tracking of photo-induced charge carriers in self assembled Titania nanocomposite using opto-impedance probe.** National Conference on Nanophotonics (NCNP - 2014). Bharathidasan University, Trichy. March 6-8, 2014.
- **Studies on nanocobalt oxide.** International Conference on Recent Trends in Advanced Materials, (ICRAM - 2012). School of Advanced Sciences, VIT University, Vellore. February 20-22, 2012.
- **Space charge limited conduction in doped polyaniline films.** Physics of Semiconductor Devices, IWPSD 2003.

Major Research Project

- Completed Major Research Project under DST Women Scientist scheme (WOS-A) titled **Synthesis and characterization of TiO₂ nanoparticles**, UGC letter No. SR/WOS-A/PS-16/2012, Project Period 2012-15.

Project Guidance

- M.Sc
- **Chinnu S Vinod**, *Review of Synthesis of Zinc Oxide nanoparticles using different extracts* (2019-21 Batch)
 - **Jesna Treasa Kurien**, *Review of Anti bacterial and Photocatalytic applications of Manganese Nanocomposites* (2019-21 Batch)
- B.Sc
- **Hariprasad M.S**, *Review on Silver nanoparticle synthesis from plant extract - Mint and Brahmi* (2018-21 Batch)
 - **Lakshmi Prasad**, *Review on Silver nanoparticle synthesis from plant extract - Tulsi and Ashwagandha* (2018-21 Batch)
 - **Ervin Thomas John**, *Review on Silver nanoparticle synthesis from plant extract - Aloe Vera and Solanum Trilobatum* (2018-21 Batch)
 - **Shaleema Samuel, Jithu P.S, Neethu S**, *Optical absorbance of liquids and verification of Beer-Lambert law* (2018-21 Batch)
 - **Mervin Thomas, Vivekanand V.H**, *Study on the refractive index of common liquids* (2018-21 Batch)
 - **Geethika P, Deepak Krishna S, Bindu B**, *Water level indicator using Transistors* (2019-22 Batch)
 - **Kamaljith P.K, Nandu S Kaipallil, Harikrishnan R**, *Rhythm LED flashlight circuit* (2019-22 Batch)

Faculty Development Programmes Attended

- 10 - 24 July 2021
- Refresher Course on Recent Advances in Physics, UGC-STRIDE, MG University, Kottayam and Mar Thoma College for Women, Perumbavoor.
- 26 June - 24 July 2020
- Orientation Programme organised by Teaching Learning Centre, Ramanujan College, University of Delhi.

Recent Seminars/ Conferences/ Workshops Attended

- April 2 - June 10, 2020
- 8 week course on "Learning Physics through simple experiments", organized by Centre for continuing education, IIT Kanpur.
- May 19 - 23, 2020
- 5 day National Faculty Development programme on MOODLE - Learning Management System, organized by Department of Computer Applications, MES College, Marampally and Spoken Tutorial, IIT Bombay.
- February 15-16, 2019
- National workshop on Resolving Complex Environmental issues - A Futuristic Approach, organized by Department of Civil and Chemical Engineering, Saintgits College of Engineering.
- July 24 - 27, 2018
- Faculty Orientation Programme on Micro-teaching, organized by Saintgits Group of Institutions, Kottayam.
- November 25, 2016
- International Seminar on Materials Science and its applications (ISMSA - 2016), organized by Mother Teresa Women's University, Kodaikanal.
- February 29, 2016
- International Conference on Recent Trends in Material Science and applications (ICRTMSA - 2016), organized by Jamal Mohammed College, Trichy.
- July 8 -10, 2015
- Recent Advances in Nanoscience and Technology (RAINSAT - 2015), organized by Sathyabhama University, Chennai.
- January 29-30, 2015
- National Conference on Advanced Materials and applications (NCAMA - 2015), organized by Hindustan University, Chennai.

Recent Seminars/ Conferences/ Workshops Attended (continued)

March 10 - 12, 2014	International Conference on Materials and Characterization techniques (ICMCT - 2014), organized by VIT University,Vellore.
February 20-21, 2014	TEQIP - II Sponsored Two day Workshop on Renewable Energy Technology for Sustainable Development (RETSE 2014), organized by Department of Chemistry, Coimbatore Institute of Technology, Coimbatore.
October 22, 2013	International Seminar on Nano-structure based Solar-photovoltaics,organized by School of Mechanical and building Sciences, VIT, Chennai.
February 27-28, 2012	National Seminar on Indigenous nanomaterials development for Industrial Applications (NANOMEET - 2012), organized by Centre for Nanoscience and Technology, Anna University, Chennai.
February 20-22, 2012	International Conference on Recent Trends in Advanced Materials (ICRAM - 2012), organized by VIT University, Vellore.
January 5-7, 2012	International Conference on Advanced Materials (ICAM - 2012), organized by Department of Physics, Loyola College, Chennai.
August 25-27, 2011	National Conference on Nanoscience and Technology (NCNN - 2011) organized by National Centre for Nanoscience and Nanotechnology, University of Madras, Chennai.

Skills

Languages known English, Malayalam, Tamil, Hindi.