



# 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](http://www.stthomascollege.info)

Kozhencherry P.O., Kerala State, Pincode: 689641 Phone: +91-9497445575, 0468-2214566

## Faculty Profile

### Dr. Arthur Varghese

Assistant Professor

Department of Physics

Mobile No. +91 7907918102

✉ [arthurvarghese@stthomascollege.info](mailto:arthurvarghese@stthomascollege.info)



## Personal Details

Date of Birth	18.07.1982
Nationality	Indian
Marital Status	Married
Permanent Address	Vattekkattil House, Karimbamkolly, Meenangadi, Krishnagiri PO: 673591, Sulthan Bathery, Wayanad, Kerala, India.

## Higher Education

2008 – 2015	PhD Physics, IISER PUNE.
2004 – 2006	M.Sc Physics, School of Pure and Applied Physics, Mahathma Gandhi University, Kottayam, Kerala.
2001 – 2004	B.Sc Physics, St Marys College, Sulthan Bathery, Wayanad.

## Professional Position

06 June 2019 to present	Assistant Professor, Department of Physics, St Thomas College, Kozhencherry
June 2016 to 2019	Guest Faculty, Department of Physics, CKGM Government College, Perambra, Kozhikode, Kerala
2015 to 2016	Assistant Professor, Physics, RV College of Engineering, Bengaluru
2014 4 Months	Post Doctoral Fellow, Department of Physics, IISC Bangalore

## Teaching Experience

2015 – 2023	Undergraduate students
2019 – 2023	Postgraduate students

## Courses Taught

---

- M.Sc
  - Electrodynamics
  - Quantum Mechanics
  - Digital Signal processing
  - Communication Systems
  - Statistical Physics
  - Atomic and Molecular Physics
  - Microelectronics
  - PG 1 Practicals
- B.Sc
  - 
  - Relativity and Spectroscopy
  - Digital Electronics
  - Physics Practicals
  - Electricity and Electrodynamics
  - Modern Physics and Magnetism
  - Material Science
  - Optics, Lasers and Fiber Optics

## Awards and Achievements

---

- 2009
  - 109 Rank, UGC NET
- 2007 and 2008
  - 310 and 196 Rank in Joint Entrance Screening Test Physics, India.

## Research Experience

---

- **PhD Student (Full time)**, Department of Physics, IISER Pune. (2008-2014)  
Guide: Dr Shouvik Datta, Associate Professor, IISER Pune  
Role of Fluid Dynamics in Nanofabrication

## Areas of Specialization and Interest

---

- Electrodynamics
- Astrophysics
- Fabrication and Electrical Properties of Devices
- Nano-Materials

## Research Publications

---

- "Directionally Asymmetric Self-Assembly of Cadmium Sulfide Nanotubes using Porous Alumina Nanoreactors Need for chemo-hydrodynamic instability at the nanoscale", Arthur Varghese and Shouvik Datta, Phys Rev E 85, 056104, 2012
- "Enhanced Photoluminescence from Ordered Arrays of Cadmium Sulfide Nanotubes Synthesized using Nanoscale Chemical Reactors", Arthur Varghese, Journal of Nanoscience and Nanotechnology, 14, 4495, 2014.

## Research Publications (continued)

---

- "Cadmium Vacancy Minority Defects as Luminescence Centers in Size and Strain Dependent Photoluminescence Shifts in CdS Nanotubes", Arthur Varghese, Prasenjit Ghosh and Shouvik Datta J. Phys. Chem. C, 118, 21604-21613, 2014.

## Skills

---

- Languages known ■ English, Malayalam, Hindi.
- Coding ■ Python
- Technical Skills ■ Field Emission Scanning Electron Microscopy (FE-SEM). High Vacuum RF and DC Magnetron Sputtering for thin film coatings, Micro-fabrication using Photolithography, Nano-fabrication using Electron Beam Lithography