

AKHIL THOMAS PANICKER

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EDUCATION

Cochin University of Science and Technology, Kochi Completed Pre-Synopsis
Ph.D in Physics

St. Berchmans College, Changanassery August 2016 – May 2018
M.Sc Physics - CGPA - 8.45

Bishop Moore College, Mavelikkara July 2013 – April 2016
B.Sc Physics - CGPA - 8.89

WORK EXPERIENCE

Bishop Moore College, Mavelikkara July 2018 – October 2018
Guest Lecturer

TECHNICAL SKILLS

- **Programming:** R, Python, NetLogo
- **Scientific Tools:** LaTeX, Overleaf, Git
- **Modeling & Simulation:** Epidemic Modeling, Complex Networks, Random Geometric Graphs, Agent-Based Modeling
- **Research Areas:** Statistical Physics, Network Science, Dynamical Systems, Computational Social Systems
- **Astronomy & Outreach:** Amateur Astronomy, Astrophotography, Telescope Observation, Skywatching, Astronomical Imaging

ACHIEVEMENTS

ICRAGT, Christ College, Irinjalakuda September 2025
Best Paper Presentation Award

CUSAT Library Golden Jubilee Quiz Competition January 2025
Third Prize, All Kerala Quiz Competition

Bishop Moore College, Mavelikkara October 2021
Space Week 2021 Online Quiz – 92% Score

Kerala Science Congress, Thiruvananthapuram January 2021
Best Paper Presentation Award (Scientist Category, Physics)

Department of Physics, St. Berchmans College, Changanassery February 2018
Second Prize, All Kerala Physics Quiz Competition

Department of Physics, CUSAT January 2018
First Prize, All Kerala Physics Quiz Competition

Department of Physics, St. Thomas College, Pala January 2018
Fourth Prize, All Kerala Physics Quiz Competition

CSIR-UGC NET June 2017
All India Rank 53

Bishop Moore College, Mavelikkara <i>Best Outgoing Student</i>	March 2016
Bishop Moore College, Mavelikkara <i>First Prize, Intercollegiate Quiz Competition (National Science Day)</i>	February 2016
Bishop Moore College, Mavelikkara <i>First Prize, Inter-Departmental Quiz Competition (BPCL, Kochi)</i>	March 2015
Bishop Moore College, Mavelikkara <i>Second Prize, Debate Competition (National Science Day)</i>	February 2015
Department of Physics, DB College, Sasthamkotta <i>Second Prize, All Kerala Physics Quiz Competition</i>	January 2015
Department of Physics, Assumption College, Changanassery <i>First Prize, All Kerala Physics PowerPoint Presentation Competition</i>	February 2014
Bishop Moore College, Mavelikkara <i>First Prize, Kalolsavam Quiz Competition</i>	February 2014
Department of Physics, Assumption College, Changanassery <i>Second Prize, All Kerala Physics Quiz Competition</i>	February 2014
Academy of Physics Teachers, Kerala <i>APT Examination – All Kerala Rank 22</i>	January 2014

PROJECTS

<u>Statistical Physics of Dynamics in Spatial Networks</u>	Ph.D work
<ul style="list-style-type: none"> • Computational and mathematical modeling of epidemics. • Studying the effect of adaptation human responses during epidemics. • Modeling spread of opinion in spatial networks. 	
<u>Altitudinal Variations of Ionospheric Scintillation</u>	May 2018
<ul style="list-style-type: none"> • Analysis of ionospheric data in 2012 and 2013. • Data from Space Physics Laboratory. • Altitudinal variations of ionospheric scintillation at post sunset period. 	
<u>Determination of Hubble's Constant</u>	May 2016
<ul style="list-style-type: none"> • Analysis of redshift data of galaxies. • Estimation of Hubble's constant. 	

PRESENTATIONS

3rd ICRAFT, Christ College, Iranjalakkuda <i>Paper presentation</i>	September 2025
33rd Kerala Science Congress, Thiruvananthapuram <i>Paper presentation</i>	January 2021
10th Complex Network Conference CN21, Madrid <i>Poster presentation</i>	December 2021

PUBLICATIONS

Herd Immunity with Spatial Adaptation Based on Global Prevalence Information

Publication Year: 2026

Proceedings of the Royal Society A, Volume 482, Issue 2332, Article 20250690

Author(s): Akhil Panicker, V. Sasidevan

DOI: 10.1098/rspa.2025.0690

Link: <https://royalsocietypublishing.org/rspa/article/482/2332/20250690/480401/Herd-immunity-with-spatial-adaptation-based-on>

Social Adaptive Behavior and Oscillatory Prevalence in an Epidemic Model on Evolving Random Geometric Graphs

Publication Year: 2024

Chaos, Solitons & Fractals, Volume 178, Article 114407

Author(s): Akhil Panicker, V. Sasidevan

DOI: 10.1016/j.chaos.2023.114407

Link: <https://www.sciencedirect.com/science/article/pii/S0960077923013097>

Trust Level in Social Networks

Publication Year: 2023

Heliyon, Volume 9, Issue 9, e19850

Author(s): Santanu Acharjee, Akhil Thomas Panicker

DOI: 10.1016/j.heliyon.2023.e19850

Link: <https://www.sciencedirect.com/science/article/pii/S2405844023070585>

CONFERENCES AND WORKSHOPS

Department of Applied Chemistry, CUSAT

January 2026

Workshop on Artificial Intelligence in Chemistry

Indian Institute of Science Education and Research (IISER) Pune

March 2024

Data Dynamics Summit 2024

Newman College, Thodupuzha

September 2021

National Webinar on Recent Developments in Applied Physics

Department of Computer Applications, CUSAT

February 2020

National Workshop on Graphs and Complex Networks

Department of Physics, CUSAT

November 2019

Workshop on Emergent Gravity Paradigm by IUCAA

Union Christian College, Aluva

October 2019

National Workshop on Canonical Partition Function and Applications by APT

International Centre for Theoretical Sciences, Bengaluru

June 2019

School on Statistical Physics 2019

International Centre for Theoretical Sciences, Bengaluru

May 2019

Summer School on Dynamics of Complex Systems 2019

Bishop Moore College, Mavelikkara

September 2018

National Conference on Recent Advances in Spectroscopy of Advanced Materials

Assumption College, Changanassery

September 2018

National Seminar on Functional Materials for Future

Christ University, Bengaluru

Workshop on Multi-Wavelength Observations Using ASTROSAT

December 2017

St. Berchmans College, Changanassery

National Workshop on Atomic Energy Awareness by IANCAS-SRC

January 2017

Bishop Moore College, Mavelikkara

Basics of Relativistic Quantum Mechanics and Field Theory

November 2016

Bishop Moore College, Mavelikkara

Environment and Western Ghats Conservation

March 2014

REFERENCES

Dr. V. Sasidevan

Assistant Professor

Department of Physics, CUSAT

Email: sasidevan@cusat.ac.in

Mr. Justin John

Assistant Professor

Department of Physics, St. Berchmans College, Changanassery

Email: justinjohn@rediffmail.com