

Dr. Mohammed Salim. M

Assistant Professor, Department of Physics
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Personal Information

Date of Birth: 29 May 1983 (Age: 42)
Qualifications: PhD in Physics
Date of Joining Teaching: 02 June 2017
Teaching Experience: 8 years, 2 months
Date of Retirement: 29 May 2043

Educational Qualifications

IHRDE <i>S.S.L.C., First Class</i>	PCM, Electronics, Computer 1998
Calicut University <i>B.Sc., First Class</i>	Physics 2004
Aligarh Muslim University <i>M.Sc., First Class</i>	Physics 2007
Aligarh Muslim University <i>Ph.D., -</i> <i>Simulation of Detector Physics Processes in Resistive Plate Chambers</i>	High Energy Physics 2014

Research Experience

Research Associate: *R&D Efforts by University Groups for INO*, Aligarh Muslim University, (2014-2016)

PhD Guideship (Since 2018):

- **Mr. Srijith S.:** Fabrication and Dosimetric Studies of Room Temperature Solid-State Detectors
- **Ms. Aparna L.R.:** Beam Characteristics of Linear Accelerators with Micro Multi-leaf Collimators Using Monte Carlo Simulation Techniques
- **Ms. Aparna J.S.:** Simulation and construction of scintillator for neutron detection

Publications

Peer-Reviewed Journals:

1. Mohammed Salim M, Rashid Hasan, **Power law cross-correlations between price change and**

- volume change of Indian stocks** – *Physica A* (2017)
2. A. Kumar, Mohammed Salim et al., **Physics potential of the ICAL detector at INO** – *Pramana-Journal of Physics* (2017)
 3. Mohammed Salim M, Rashid Hasan, **Multifractal analysis of Asian markets during 2007-2008 financial crisis** – *Physica A* (2015)
 4. M. Salim et al., **Simulation of Efficiency and Time Resolution of RPCs and Comparison with Experimental Data** – *Journal of Instrumentation* (2015)
 5. M. Salim et al., **Experimental and numerical studies on the effect of SF₆ in a glass RPC** – *Journal of Instrumentation* (2012)
 6. S. Mohammed et al., **Development of 2 m x 2 m size glass RPCs for INO** – *Nucl. Instrumentation and Methods A* (2010)
 7. S. Mohammed et al., **Velocity measurement of cosmic muons using the India-based Neutrino Observatory prototype detector** – *Nucl. Instrumentation and Methods A* (2010)

Conference Papers:

1. **Assessment of Scattering Contribution in Activity Measurements of Co-60 Teletherapy Sources Using Geant4 and Garfield++** – *Proceedings of the DAE Symposium on Nuclear Physics, Volume 68, page 1247, 2024*
2. **Optimizing Gas Detectors with Gas Mixture of Isobutane and CO₂: A Combined Experimental and Simulation Study** – *Proceedings of the DAE Symposium on Nuclear Physics, Volume 68, page 1249, 2024*
3. **Simulation of Space Charge Effect on Time Resolution in RPCs** – *Proceedings of the DAE Symposium on Nuclear Physics, Volume 60, page 996, 2015*

Academic Activities

Syllabus Preparation: Participated in workshop on syllabus preparation of FYUG Program for Physics at All Saint's College, Thiruvananthapuram (19–23 March 2024)

Syllabus Revision: Participated in Physics syllabus revision workshops (2022, University of Kerala)

Editorial Work: Editor of proceedings in the International Conference on Recent Trends in Theoretical and Applied Physics (2021)

Administrative Responsibilities

Head of the Department: Department of Physics, June 2025 – Present

NIRF Nodal Coordinator: June 2023 – June 2025

College Website Coordinator: June 2020 – Present

Workshops and Conferences

Recent Events:

- **National Workshop "Geant4 for Applied Nuclear Physics-II**, Calicut University (19–21 February 2025) – Resource Person
- **68th DAE Symposium on Nuclear Physics**, IIT Roorkee (7–11 December 2024) – Presenter
- **Mathematical Modelling**, Calicut University (4–5 January 2024) – Resource Person
- **Refresher Course on General Relativity and Cosmology**, Indian Academy of Sciences (15–28 May 2023) – Participant