
Ms. Aparna L R

Assistant Professor, Department of Physics

T. K. M. College of Arts and Science, Kollam

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Professional Summary

Dedicated academician with over 13 years of teaching experience in Physics, with a special interest in nuclear and high energy physics, as well as interdisciplinary research in nanomaterials and their environmental applications. A certified UGC-NET holder with a strong commitment to student mentorship, curriculum enhancement, and academic development. Currently serving as the Coordinator of the Teaching Learning Centre (TLC) and a core member in multiple academic committees of the institution.

Educational Qualifications

- **UGC-NET (Physical Sciences)**, CSIR/UGC – June 2009
 - **M.Sc. in Physics**, University of Kerala – First Class with Distinction (2005)
 - **B.Ed. in Physical Sciences**, University of Kerala – First Class with Distinction (2006)
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Professional Experience

- Assistant Professor, Department of Physics, TKMCAS Since October 4, 2012

Total Teaching Experience: 13 years

Academic Responsibilities & Contributions

- Head of the Department (2020–2024)
- Coordinator, Teaching Learning Centre (2022–Present)
- Member, Strategic Team & DST-FIST Implementation Committee
- Coordinator, Human Rights Forum (2014–15)
- Coordinator, Day Observance Committee (2020–22)
- Member, Program Outcome/Course Outcome Committee (2020–23)
- Mentor, B.Sc. Physics 2018–21 Batch
- SSP Resource Person (2014–17, 2019–20); WWS Mentor (2020–21)
- Faculty Advisor:

- M.Sc. Physics: 2017–19, 2019–21, 2020–22

- B.Sc. Physics: 2011–14, 2014–17

Courses Attended

Orientation & Refresher Courses:

- Orientation Programme – Academic Staff College, University of Kerala (2015)
- Refresher in Physics – TLC Ramanujan College (2023)
- Refresher on Astronomy & Astrophysics – IUCAA Pune (2020)
- Refresher on MOOCs – TLC Ramanujan College (2021)

Faculty Development Programmes (FDPs):

- NEP 2020 Orientation – UGC MMTP, AMU (May 2025)
- Re-energising Higher Education – KSHEC & TKMCAS (2023)
- Outcome-Based Education – SN College Kollam (2021)
- LMS & Moodle Tools – KSHEC & Digital University Kerala (2021)
- Multiple FDPs on ICT, Moodle, and Post-pandemic Pedagogies

Short-Term Courses:

- Teaching-Learning Methods – TLC Ramanujan College (2022)
 - Radiochemistry Applications – DAE-BRNS, CUSAT (2024)
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Conferences & Workshops (Recent Highlights)

- National Conference on Mathematics and its Applications – TKMCAS & SRIBS (2025)
 - Workshop on GEANT4 for Applied Nuclear Physics – Calicut University (2024)
 - Refresher Course in Physics – TLC Ramanujan College (2023)
 - Awareness Training on Plasma Science & Nuclear Fusion – IPR & NCSTC (2018)
 - Convenor, International Conference on Energy and Environment 2K19 – TKMCAS
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Publications

- Synthesis and Optical Bandgap Study of $\text{Sm}_2\text{Zr}_2\text{O}_7$ Oxides
S. Srijith, L.R. Asitha, L.R. Aparna, et al.
AIP Conference Proceedings, Vol. 2393, 020072 (2021)
- Morphological Modification of Cobalt Oxide Nanoparticles Using Zinc and Optical Investigation

L.R. Asitha, S. Srijith, L.R. Aparna, A. Ghosh, et al.
AIP Conference Proceedings, Vol. 2393, 020073 (2021)

- X-ray Diffraction Line Profile Analysis of Ce Substituted $\text{Gd}_2\text{Zr}_2\text{O}_7$ System ($\text{Gd}_{2-x}\text{Ce}_x\text{Zr}_2\text{O}_7$ ($x = 0, 2$))

S. Srijith, L.R. Asitha, L.R. Aparna, et al.
AIP Conference Proceedings, Vol. 2393, 020070 (2021)

Memberships

- Life Member – Association of Physics Teachers (APT), Kerala
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