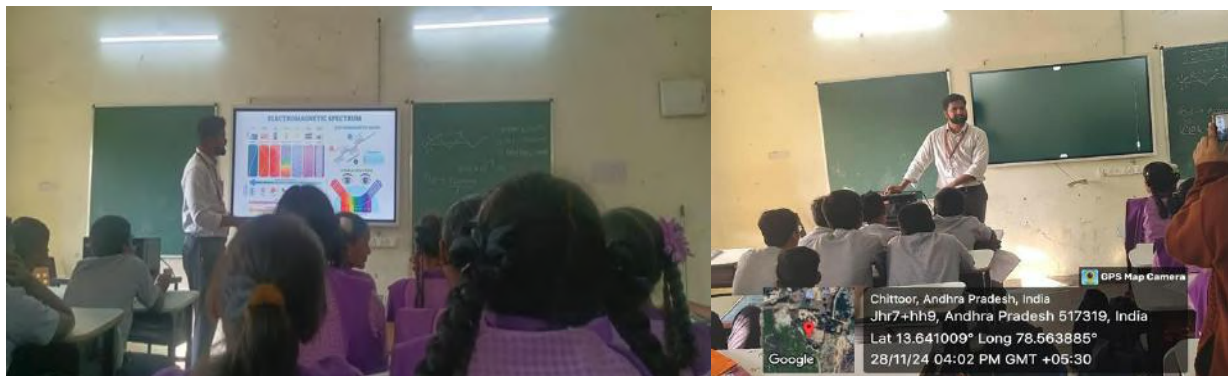


**A Report on Outreach Activity Report on
Guest Lecture: "Electromagnetic Spectrum: Understanding Its Applications"
Organised by Department of Physics
on 28.11.2024**



Report Submitted by: Dr. Charan Kuchi, Assistant Professor, Department of Physics.
Venue: Government ZP High School, CTM Village, Anamayya District, Andhra Pradesh.
Participants: 10th Standard (45 students)
Mode of Conduct: Offline
Report Received on 06.12.2024.

Objective of the Outreach Activity:

The purpose of this outreach activity was to bridge the gap between classroom knowledge and real-world applications. The lecture aimed to inspire curiosity among 10th standard students by introducing the concept of the Electromagnetic Spectrum and its relevance to daily life. It also sought to foster scientific thinking and motivate students to explore careers in science and technology.

Summary of Activities:

The session began with an introduction to the electromagnetic spectrum, explaining the range of electromagnetic waves and their classification.

Key Topics Covered:

- Regions of the electromagnetic spectrum: radio waves, microwaves, infrared, visible light, ultraviolet, X-rays, and gamma rays.
- The properties and applications of each region.

Practical Demonstration:

- Highlighted the **working principle of a microwave oven**, connecting theoretical concepts to practical applications.
- Discussed infrared usage in remote controls and the role of X-rays in medical imaging.

Interactive Engagement:

- Used digital and visual aids (Power point slides and diagrams) for clear explanations.
- Students participated in a Q&A session, asking insightful questions and discussing real-world scenarios.

Feedback:

The school faculty appreciated the initiative and recognized its value in enhancing students' understanding of science beyond textbooks. Students expressed enthusiasm and eagerness for similar sessions in the future. The session successfully fostered curiosity and enthusiasm for physics and technology, encouraging students to think beyond their textbooks and explore real-world applications of science. It also strengthened the relationship between Madanapalle Institute of Technology & Science and the local community, highlighting the institute's commitment to promoting education and outreach activities. Moreover, the session emphasized the importance of science in everyday life, inspiring students to consider science and technology as potential career paths. This activity proved to be a meaningful step toward community engagement and educational enrichment.