

ATAL TINKERING LAB: EXPLORING LDR AND IR SENSOR PROJECTS

Date: 19th July 2023

Venue: AMS P.Obul Reddy Public School

Introduction:

The Atal Tinkering Lab workshop, organized by Bayer Foundation in collaboration with Empower, was a hands-on and interactive session aimed at fostering innovation and practical learning among participants. The workshop, conducted by the skilled trainer, Mr. Prabhudevan, focused on utilizing Light Dependent Resistors (LDR) and Infrared (IR) Sensors in innovative projects.

Participants:

The workshop had enthusiastic participants from AMS P.Obul Reddy Public School, including:

1. Mr. G Srinivas
2. Mr. Mallikarjun
3. Mrs. Triveni
4. Mrs. Yuvasanthi

Workshop Objectives:

1. Introduce participants to the concepts of LDR and IR Sensors.
2. Facilitate practical learning through project-based activities.
3. Encourage creativity and problem-solving skills among the participants.
4. Demonstrate the potential of Atal Tinkering Labs for nurturing young minds in the field of technology.

Agenda:

1. Introduction to Atal Tinkering Labs and their significance in promoting STEAM education.
2. Understanding the fundamentals of Light Dependent Resistors (LDR) and their applications.
3. Exploring Infrared (IR) Sensors and their role in various electronic projects.
4. Hands-on session - Building projects using LDR and IR Sensors:
 - a. Light-sensing project with LDR - Creating an automatic lighting system.
 - b. Obstacle detection project with IR Sensor - Designing a smart obstacle-avoidance robot.
5. Collaboration and group activities to foster teamwork and creativity.
6. Showcase of participants' projects and sharing of experiences.

Workshop Details:

The workshop commenced on 19th July 2023 at AMS P.Obul Reddy Public School. The participants, Mr. G Srinivas, Mr. Mallikarjun, Mrs. Triveni, and Mrs. Yuvasanthi, showed great enthusiasm and actively participated in the various activities.

Mr. Prabhudevan, the workshop trainer, began with an introductory session, emphasizing the importance of Atal Tinkering Labs in nurturing innovation and problem-solving skills among young minds. He then proceeded to explain the technical aspects of LDRs and IR Sensors, discussing their working principles and practical applications.

During the hands-on activities, the participants were divided into teams and guided by Mr. Prabhudevan to build two exciting projects - an automatic lighting system using LDRs and a smart obstacle-avoidance robot employing IR Sensors. The participants learned essential skills such as component wiring, coding, and troubleshooting, enhancing their technical proficiency.

The collaborative activities facilitated teamwork, allowing the participants to share ideas and learn from one another. The engaging atmosphere encouraged creativity and critical thinking, leading to the successful completion of the projects.

Conclusion:

The Atal Tinkering Lab workshop on LDR and IR Sensor projects conducted on 19th July 2023 at AMS P.Obul Reddy Public School was a remarkable success. The participants, Mr. G Srinivas, Mr. Mallikarjun, Mrs. Triveni, and Mrs. Yuvasanthi, showed exemplary enthusiasm and dedication throughout the workshop.

The collaboration between Bayer Foundation and Enpower in organizing this workshop proved highly beneficial in providing participants with practical learning experiences. The active participation and innovative spirit displayed by the attendees demonstrated the immense potential of Atal Tinkering Labs in nurturing future innovators and problem solvers.

We extend our heartfelt appreciation to Mr. Prabhudevan for his expertise and guidance, which made the workshop engaging and insightful. Our gratitude also goes to Bayer Foundation and Enpower for their support in promoting STEM education and empowering young minds.



