**Arduino Challenge**

**Introduction**:

The idea is to conduct a Challenge where the technical ability of participants will be tested. The Challenge also aims to engage students in technical projects and activities based on their learnings from the workshop.

**Timeline**

**11th March** : Announcement of challenge – poster release, social media publicity

**18th March :** Report Submission

**1st April :** Prototype Presentation

**Problem Statement**

Projects providing a solution to a social problem using any Arduino microcontroller are expected. The project can incorporate IoT and AI features.

Areas of Interest –

1. Water Conservation
2. Water Quality Monitoring System
3. Farm Irrigation Solutions
4. Waste/Compost Management
5. Energy Conservation Solutions
6. Smart Homes
7. Exhaust Management and Air Quality Control
8. Traffic Management

**Event Plan –**

1. **Report Submission**

Participants are required to prepare a 200 word report explaining their idea and how they wish to implement it. The participants are also supposed to explain how they plan to develop the prototype.

**Report Format** is as given below –

All reports will have to comprise of the following data –

* 1. Project Title
  2. Abstract (200 words)
  3. How does the project contribute towards a social cause?
  4. What are the components used in the prototype?
  5. Cost estimation of prototype

1. **Shortlisting of Projects**

Projects will be selected based on the creativity and innovativeness of the idea and impact the project can have if implemented.

1. **Final Prototype Presentation**

The selected participants will have to attend the final round of the Challenge where they are have to present their idea and the prototype they have developed.

**Judging Criteria**

* The best abstracts will be selected based on creativity and innovation by Team Envision
* The selected participants will be called for a presentation with a working prototype of their idea, they will be scored out of 100 points –
  + Novelty and Innovation – 25 points
  + Presentation – 25 points
  + Prototype working and implementation – 50 points
* A faculty working in the field of IoT will be invited as a judge for the presentation event.

**Prizes**

First Place – INR 4000/-

Second Place – INR 2000/-

Third Place – INR 1000/-