

## **Robotics Insight**

### **Team Event (Y18 & Y19) | Points: 30**

#### **Preamble:**

Students are full of ideas- innovative, ingenious and fascinating ideas that have social, entrepreneurial and/or research value. But are all of these ideas feasible?

Here, we are looking for original ideas that are optimal in balancing the trade-off between fascination and feasibility.

Robotics Insight gives the students an opportunity to innovate and propose solutions (involving the application of robotics) to real-life problems and resultantly uplift the standard of living of our society.

#### **Team Structure:**

- Each team can have a maximum of 5 members.
- Minimum 3 members must be Y19 students.
- There is no upper limit on the number of teams from one pool.

#### **Round 1- Project Proposal**

1. Every team needs to prepare a project proposal of a minimum of 2 pages and a maximum of 5 pages. (If the proposal exceeds 5 pages, only the first 5 pages will be considered). Font size of the text must be 12, uniform throughout the proposal.
2. The proposal should ideally include the following:
  - Names, Roll Numbers and iitk email ids of all team members.
  - Project Title: Title or name of your project
  - Introduction: Please provide a high level view of the problem you are trying to solve and a short summary of the solution. The participants are encouraged to look at the current landscape especially in India. Some examples of identified problems under this theme are:
    - A machine that cleans spectacle lenses automatically (The machine can be installed in a spectacle shop, wherein a large number of)
    - Fully automated shoe polishing machine
    - Paddy (Rice) Transplanter
    - Jamun Plucking Machine
    - Any other field in which automation can reduce either time or drudgery or both

- Detailed Problem Statement and Prescribed Solution: Provide a detailed view of the problem statement, a quick survey of what/how the problem is being currently addressed/or not addressed, details of how you plan to solve it, a review/links of related work in this area.
  - Uniqueness of the project: What is unique in your proposal? Are there other products/ solutions/ companies already doing it? If so, how is your proposal different? Will it save cost? Why is it innovative? Will it make things easier for the end user?
  - System or Concept level Block Diagram: A picture is worth a thousand words. Please provide a concept diagram or a block diagram of your solution.
  - What are your long term plans to take this project forward? Are you passionate about the solution you plan to build? How does the team want to take this forward?
  - What would be the possible Limitations of your proposed solution to the problem?: Please highlight any limitations of your proposed solution. Where will it not work or work suboptimally? The idea of the question is to get the team thinking of situations and circumstances where the proposed solution might not work.
  - Cost Analysis of the solution & Business Model
  - References: Teams are requested to provide reference hyperlinks of pertinent articles, papers, research and trends in the industry wherever applicable that would help us to evaluate your proposal.
3. Submission Guidelines:
- The proposal you submit ( .pdf file) should not be more than 5MB in size. The proposal must be written within 3 - 5 pages, including figures, tables and references.
  - A picture is worth a thousand words, so you are strongly encouraged to use pictures.
  - Teams must mail their project proposals to the following email id:  
[roboticsclubiitkanpur@gmail.com](mailto:roboticsclubiitkanpur@gmail.com)
  - The deadline for submission is 11:59pm, 6th September 2019

### **Round 2- Presentation**

1. Every team that gets qualified for round 2 must deliver a presentation of a maximum of 7 minutes. Your presentation will be stopped after 7 minutes.
2. Preparing a google presentation for the same is highly recommended.
3. Y19 students are encouraged to deliver the presentations.
4. The presentations will be held on

**Judging Criteria:**

- Evaluation will be based on-
  - Round 1: Project Proposal
  - Round 2: Presentation
- A total of 10 teams will qualify for round 2, based on their project proposals in Round 1. These 10 proposals will be selected by the judges.
- Final Result will be based on the performance in both - Round 1 (75% weightage) and Round 2 (25% weightage)
- All entries will be judged on the following criteria:
  - Feasibility of the proposed solution
  - Novelty/innovation of the proposed solution
  - Analysis of existing solution(s)
  - Project Proposal aesthetics
  - Effectiveness of the presentation
  - Other parameters
- The decision of the judges shall be final.
- Top 5 teams (with the highest total marks) will be awarded points according to the rules mentioned in the Takneek Pre-Conduction Report.

**All the best!**

Enjoy the Spirit of Roboting!

Coordinators, Robotics Club, IIT Kanpur