



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:
 - 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)
 - Fully automated shoe polishing machine
 - Automated machine for Tire puncture identification and repair
 - Fully Automated Jamun Plucking Machine
 - Any other field in which automation can reduce either time or drudgery or both or can add social value

- 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 sub-optimally? 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.
 - Mentioning pool name/team members' names in the proposal is not allowed.
 - Teams must mail their project proposals to the following email id: sntsecy@iitk.ac.in (with Member Names, Roll No. and IITK Email ID written in the body of the mail).
 - 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 Saturday, 7th September 2019.

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.

In case of any problem, feel free to contact the club coordinators or secretaries. Contact details available on: <http://students.iitk.ac.in/roboclub/>

All the best!

Enjoy the Spirit of Roboting!

Abhay Varshney | Madhur Deep Jain | Neil Shirude
Coordinators, Robotics Club, IIT Kanpur