



#### DEPARTMENT OF ROBOTICS AND AUTOMATION ENGINEERING

## 20<sup>th</sup> Engineering Today 2025

### **MOCK PLACEMENT [ RA-1]**

#### **Event Concept:**

**Mock Placement** will be an exciting placement competition in which participants will be able to test themselves, immersed in real-world scenarios. The competition will be divided into three rounds that will simulate the stages of a job placement process, with the goal of assessing participants' project management skills, problem-solving abilities, communication skills, and teamwork.

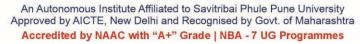
Faculty Coordinator:	Dr. N. G. Shekapure
Day, Date & Time of Event:	Monday, 29 <sup>th</sup> September 2025, 9:00 AM
Venue:	Room No 237
Entry Type:	Individual
Entry Fee:	Rs 100 per student

#### **Rewards:**

- Prize pool worth Rs 8000/- (Eight Thousand Only)
- 1st Prize Rs 5000/-
- 2nd Prize Rs 3000/-
- Complete and detailed tailored analysis of the participant's performance given to all the Participants
- Participation Certificate to all the Participants









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#### **Expected Outcomes:**

- Help participants understand their caliber in the placement stages
- Provide a platform to develop their project management skills, problem-solving attitude, and communication abilities.
- Bridging the gap between Industry and Academics by facilitating interactions between participants, industry experts, and faculty members.

#### **Event Structure:**

The Event will consist of the following stages:

- **Round 1**: Online Aptitude Test (MCQs on aptitude, logical reasoning, Quantitative ability, verbal and reading ability)
- Round 2: Technical Aptitude Test (Technical MCQs on hardware and software)
- Round 3: Group Discussion (On-the-spot topic allocation)
- **Round 4**: Technical Interview (Based on the selected domains (Software or Hardware)) + HR Interview (personality, communication, general awareness)

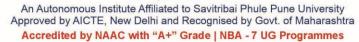
#### Guidelines, Rules, and Regulations:

#### **Eligibility & Registration:**

- Students from First to Fourth Year are eligible to participate.
- All participants must register online through the official event website before the 1st round of the event.
- Participants must provide accurate and complete information during registration.



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#### **Behavior:**

- Participants must maintain discipline, punctuality, and professional behavior throughout the Event.
- Any form of disruptive behavior, cheating, or failure to follow the code of conduct will lead to immediate disqualification without prior notice.

#### Judges' Decisions:

- Decisions made by the judges and organizers will be final and binding.
- Any appeals or disputes will not be entertained.

#### **Code of Conduct:**

- All work submitted by the participant must be original, plagiarism, use of AI assistance or using external materials without proper citation is strictly prohibited.
- The organizers are not responsible for any personal loss, technical issues, or unforeseen disruptions during the Event.

#### **Selection Process:**

There will be 3 rounds:

#### **Aptitude Test:**

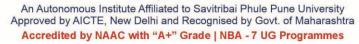
- The test will be of 30 minutes having 20 questions.
- No extra time will be given.
- Each right answer will be awarded as per the assigned marks.
- There will be no negative marking for wrong answers.

#### **Group Discussion:**

- Participants will be divided into smaller groups.
- Each group will be given a topic and approximately 5-7 minutes will be given for each discussion.









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#### Personal Interview (Technical & HR):

• This will be the final round with one-on-one interviews with the expert panel.

#### **General Instructions:**

#### Attendance:

- Participants should arrive at the venue by 9:00 AM time for registration and event briefing.
- Each participant must bring their valid student identification proof for verification.

#### **Devices and Attire:**

- Carrying personal laptops is recommended
- Other electronic devices (tablets, phones, smart watches) are allowed only during designated rounds. .

**Note:** The event schedule, rules, and judging criteria are subject to change.

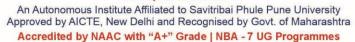
Participants will receive updated information through official communication channels.

For any queries or clarifications, please reach out to the event organizers.

Dr N G Shekapure Event Faculty Coordinator Mr M A Kellkar Faculty Coordinater Dr P S Gajjal Head of Department









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## Department of Robotics & Automation Engineering 20<sup>th</sup> Engineering Today-2025

### F1 SIMULATION [ RA-2]

F1 SIMULATION involves creating a virtual model of a real-world system, process, or environment to analyze its behavior under varying conditions without the associated risks, costs, or constraints of real-world testing. It is widely used in fields such as engineering, finance, healthcare, and entertainment to predict outcomes, optimize performance, and gain insights into complex systems.

Faculty Coordinator:	Mr. S. S. Kallurkar
Day, Date & Time of Event:	29 <sup>th</sup> & 30 <sup>th</sup> September 2025, 9:00 AM
Venue:	Room No 240
Entry Type:	Individual
Entry Fee:	Rs 100 per student

#### Exciting rewards:

1	Prize pool worth Rs 8000/-	3	Second Prize 3000/-
2	First Prize Rs 5000/-	4	Participation Certificate to all the participants

#### **Guidelines for Participants**

VOLUNTEER DECISION WILL BE THE FINAL DECISION.

<u>Participation</u> – Each Participant will be able to experience the Simulated setup for a given number of time. Competition will be based on the lowest time taken by the participant to complete the task in the given time frame.

Top 20 Participants will be qualified for final.

## Winner Selection:

First Position: Fastest lap time	Second Position: Second-
	fastest lap time

## Schedule for RA-2

29 <sup>th</sup> September Monday					
Activity planned	Time scheduled	Allotted time			
Commencing of 1st Day	9:00 am 29 <sup>th</sup> September				
On spot entry window	Starts 9:00 am 26th September				
Break	12:00 to 1:00 pm	1hr			
Day 1 ends 5:00pm		8hrs			
30 <sup>th</sup> September Tuesday					
Commencing of 2 <sup>nd</sup> Day					
On spot closing window	Ends 4:00 pm 30 <sup>th</sup> September				
Evaluation	3:30 pm	10 min			
Finale Stage	4:00 pm	45 min			
Result Declaration	4:50 pm	5 min			

## Scoring criteria:

Criteria	Points Allotted
Task completion	50
Time	
Total Time	50

R	Rules & Regulation for the Event:				
1	You can register only Individually.	5	Time limit is applicable for both days.		
2	The competition will be conducted within Two day time frame.	6	Top 20 Participants will be qualified and compete on 3 <sup>rd</sup> day		
3	Participants must complete their laps within a set time frame. Failure to do so may result in disqualification.	7	Task completion time of each participant will be evaluated on 2 <sup>nd</sup> day of event.		
4	The main focus is on completing the lap in the fastest time.	8	The top two participants with the fastest lap times will be declared the winners		

#### Fair Play

Participants are expected to maintain fair play and respect for fellow participants, event organizers, and the environment. Any form of cheating, disruptive behaviour, or noncompliance with event rules may result in disqualification.

The outcome of the simulation project for participants was multifaceted and impactful. By engaging in this hands-on experience, participants gained understanding of the technical complexities and precision required in Formula 1. The event also heightened their appreciation for the ethical considerations and strategic thinking involved in high-performance engineering. Overall, the simulation provided a comprehensive learning experience, equipping participants with practical knowledge and skills applicable to both academic and professional pursuits in the engineering field.

Mr. S. S. KALLURKAR

Mr. M . A. KELKAR

DR. P. S. GAJJAL

**Event Coordinator** 

Dept ET Coordinator

H.O.D R&A



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## Department of Robotics & Automation Engineering 20<sup>th</sup> Engineering Today-2025 SQUID GAMES [RA-3]

The **Squid Games** Tech Challenge is a unique event that integrates creativity, technology, and competitive spirit. Inspired by the popular Squid Games, this event reimagines the challenges through innovative systems developed by students. The competition begins with Red Light–Green Light, enabled by a vision-based detection system, where participants must demonstrate precision and discipline to qualify. Successful participants then proceed to the Shooting Challenge, featuring a light gun engineered using ADXL sensors and ESP modules, where accuracy and timing are critical. Final rankings are determined by a combined evaluation of Red Light–Green Light performance and shooting scores, ensuring that only the most skilled and consistent participants emerge as winners

Faculty Coordinator:	Mr. Y. R. Chandwade	
Day, Date & Time of Event:	<b>nt:</b> Monday, 29 <sup>th</sup> & 30 <sup>th</sup> September 2025, 9:00 AM	
Venue:	Room No 237	
Entry Type:	Individual	
Entry Fee:	Rs 100 per student	

#### **Exciting rewards:**

Prize pool worth <b>Rs 8000/-</b> (Eight Thousand Only)	1st Prize – <b>Rs 5000</b> /-
Participation Certificate to all the Participants.	2nd Prize – <b>Rs 3000</b> /-

#### **Schedule for PR-3:**

Activity planned	Time scheduled	Allotted time
29th September Monday		
Commencing of Event	9:00 am	
On spot entry window	Starts 9:00 am 29 <sup>th</sup> September	
Break	12:00 to 1:00 pm	1 hr
Day 1 ends	5:00 pm	8 hrs

30 <sup>th</sup> September Tuesday					
Commencing of Event	Starts 9 am 30 <sup>th</sup> September				
On spot Entry Ends	3:00 pm				
Concluding Event	4:30 pm	1.5 hrs			
Result	5:00 pm	30 mins			

#### **Scoring scheme**

Red Light-Green Light (Qualification Round)

- Participants must successfully complete the round without disqualification.
- Best completion time will be recorded for tie-breaking.

Shooting Challenge (Final Scoring)

- Each participant's score will be generated automatically by the computer-based shooting system.
- Higher shooting points indicate better performance

#### **Rules & Regulation:**

- 1) All Decisions taken by the coordinators are meant to be followed and respected.
- 2) You can register only Individually.
- 3) The competition will be conducted in Two Stages.
- 4) Movement during "Red Light" will result in immediate disqualification
- 5) Qualification to the Shooting Challenge is based on successful completion within the allotted time
- 6) Each participant will be given a fixed number of shots within a set time frame.
- 7) Final winners will be selected based on the **combined performance** in Red Light–Green Light (qualification and timing) and total points scored in the Shooting Challenge.
- 8) In case of a overall tie, a tie-breaker round will be conducted.

#### Fair Play

Participants are expected to maintain discipline, follow all instructions, and respect fellow competitors and organizers. Any form of cheating, tampering with equipment, or misconduct will lead to immediate disqualification.

The **Squid Games** Tech Challenge offers participants a unique opportunity to experience how traditional games can be transformed through technology and innovation. By engaging with systems such as vision-based detection and sensor-integrated shooting modules, participants gain practical exposure to robotics, embedded systems, and real-time decision-making. The event not only enhances their technical understanding but also builds focus, precision, and competitive spirit. Overall, it provides a balanced blend of learning and excitement, showcasing how engineering creativity can redefine entertainment and skill-based competition.