

EVENT HOSTING PROPOSAL

SUBJECT: Proposal to Host the Official Nepal Zonal Selection for Techniche 2026 (IIT Guwahati) (Escalade 15.0 and Aviation Workshop)

1. Executive Summary

We hereby submit a formal proposal to host the official Nepal Zonal round of Techniche 2026, the annual techno-management festival organized by the Indian Institute of Technology (IIT) Guwahati.

By hosting this event, GoldenGate International College will serve as the exclusive regional hub in Nepal for Escalade 15.0, a premier international pole-climbing robotics competition, alongside an intensive hands-on Aviation, Aeromodelling, and RC Aircraft Workshop.

This initiative aims to position GoldenGate International College as a premier destination for technological innovation, applied engineering, and STEM education in Nepal. The top three winning teams from this zonal selection will qualify directly to represent Nepal at the international finals held at IIT Guwahati, India.

The total financial allocation required for constructing the arena, conducting the workshop and field visit, manufacturing in-house benchmark robots, and awarding prize money is NPR 162,000 (One Lakh Sixty-Two Thousand Nepalese Rupees).

2. Event Overview and Context

2.1 About Techniche and IIT Guwahati

Techniche is the annual techno-management festival of IIT Guwahati, recognized as one of the largest student-organized technical festivals in Asia. It brings together thousands of students internationally to foster technical problem-solving, engineering excellence, and technological leadership.

2.2 Event 1: Escalade 15.0 (Robotics Competition)

Escalade 15.0 is the flagship robotics challenge of Techniche. The objective is to design, construct, and operate a wired or wireless robot capable of rapidly ascending and descending a vertical pole under strict structural and operational constraints.

- Task Requirements:** The robot is initially clamped to the base of a 2.5 m vertical PVC pipe (10 cm below the start line). Upon activation, the robot must ascend past the upper checkpoint line (2 m above the start mark) and descend back to the finish line in the shortest time possible.
- Structural Constraints:** Maximum allowable dimensions are 45 cm × 30 cm × 30 cm (±2%). The maximum permissible weight is 5 kg (±2%), excluding external power sources.
- Qualification:** The top three ranked teams in the Nepal Zonal selection will advance directly to the final round at IIT Guwahati.

2.3 Event 2: Aviation Workshop and Field Flight Demonstration

To encourage broader student participation across multiple engineering disciplines, an interactive aeromodelling workshop will be conducted. Participants will learn aerodynamic principles, structural design, and remote electronics integration while fabricating complete fixed-wing RC foam aircraft and testing them at a flying field.

3. Institutional Benefits

- International Visibility:** Elevates the profile of GoldenGate International College as an official international host venue for an IIT Guwahati event in Nepal.
- Practical Skill Development:** Provides students with direct experience in mechanical drive systems, structural design, radio telemetry, and aerodynamics.
- Student Recruitment and Outreach:** Attracts high-performing science and technology students from schools and colleges across Nepal to our campus.
- Capital Asset Acquisition:** All electronic components, RC transmitters, high-torque motors, and structural hardware acquired for the demonstration units will remain permanent assets of the college robotics laboratory.

4. Itemized Financial Plan

The detailed budget required for event logistics, workshop materials, robot fabrication, and prize distributions is outlined below.

Section A: Escalade 15.0 Arena Construction and Cash Prizes

S.N.	Item Description	Specifications / Remarks	Amount (NPR)
1.	Escalade Arena Fabrication	Standard arena as specified by the IIT	20,000

2.	1st Prize Award	Zonal Selection Winner Prize	15,000
3.	2nd Prize Award	First Runner-up Prize	10,000
4.	3rd Prize Award	Second Runner-up Prize	5,000
Subtotal (Section A)			50,000

Section B: Aviation Workshop and Field Demonstration Logistics

This section covers trainer fees, flying field/venue rentals, aircraft build materials and electronics kits, tool usage, and general workshop operational expenses.

S.N.	Description	Operational Scope	Amount (NPR)
1.	Aviation Workshop & Flight Field Logistics	Trainer fees, venue rentals, aircraft build kits/materials, and workshop expenses	60,000
Subtotal (Section B)			60,000

Section C: GoldenGate Escalade Benchmark Bot Development

To demonstrate institutional technical competency and guide competing participants, the host club will build benchmark Escalade robots.

S.N.	Item Description	Quantity / Details	Unit Rate (NPR)	Amount (NPR)
1.	High Torque Motors	6 units	2,500	15,000
2.	Dual Motor Controllers / 20A ESCs	2 units (20 A Dual ESCs at NPR 9,000 each)	9,000	18,000
3.	LiPo Power Batteries	2 units (3200 mAh high-discharge LiPo)	3,500	7,000
4.	Remote Control Transmitters and Receivers	1 set (Multi-channel RC Remotes and Receivers)	12,000	12,000
Subtotal (Section C)			52,000	

Financial Summary

- **Section A (Arena Fabrication and Awards):** NPR 50,000
- **Section B (Aviation Workshop Logistics & Trainer Fees):** NPR 60,000
- **Section C (In-House Demonstration Robots):** NPR 52,000
- **Total Project Financial Requirement: NPR 162,000**

5. Institutional Support and Infrastructure Requirements

To ensure smooth operational execution, standard institutional support and logistical facilities are requested from GoldenGate International College:

1. **Venue Reservation:** Access to the college Auditorium Hall for workshop sessions and the main competition event.
2. **Transportation:** Two-way transport vehicle arrangement from the college campus to the external flying field venue on 23rd Shrawan for participants, trainers, and equipment.
3. **Power Supply:** A portable power supply/generator arrangement for field testing on 23rd Shrawan.
4. **Promotional and Branding Materials:** Official college-branded event banners, participant/organizer T-shirts, and promotional flags.
5. **Media Coverage:** Videography and photography setup/team for event documentation and submission to IIT Guwahati evaluation coordinators.
6. **Felicitation:** Formal Token of Love / mementos for the guest trainers and workshop facilitators.

6. Four-Day Event Schedule and Execution Strategy

6.1 Event Itinerary

- **Day 1: 21st Shrawan - Opening & Aviation Workshop (Part I - Aerodynamics & Airframe Build)**
 - Venue: College Auditorium Hall.
 - Morning: Inauguration, participant registration, and orientation.
 - Afternoon: Theoretical session on principles of flight, airframe design, foam sheet cutting, and structural assembly.
- **Day 2: 22nd Shrawan - Aviation Workshop (Part II - Electronics Integration) & Escalade Bot Build**
 - Venue: College Auditorium Hall / Robotics Lab.
 - Morning: Installation of Electronics , micro servos, and linkage calibration on aircraft models.
 - Afternoon: In-house Escalade robot fabrication session, clamping mechanism tuning, and motor controller programming.
- **Day 3: 23rd Shrawan - Flying Field Visit & Flight Testing**
 - Venue: Designated Open Flying Ground (Two-way transport provided from college).
 - Morning to Afternoon: Field trip for flight balancing, trimming, live RC aircraft flight testing, and field demonstrations.
- **Day 4: 25th Shrawan - Escalade 15.0 Main Event & Award Ceremony**
 - Venue: College Auditorium Hall.
 - Morning: Technical inspection and dimensional auditing (45 cm × 30 cm × 30 cm, weight ≤ 5 kg).
 - Afternoon: Official Escalade 15.0 competitive pole-climbing trials recorded via 3-camera system.
 - Evening: Declaration of winners, award distribution ceremony, and official data transmission to IIT Guwahati coordinators.

6.2 Multi-Camera Recording and Verification Setup

In strict adherence to official Techniche evaluation standards, the Escalade arena will feature a standardized 3-camera recording system:

1. **Camera 1 (Wide View):** Positioned to continuously capture the full height of the structure, vertical pole, and overall robot movement.
2. **Camera 2 (Start/Finish Line):** Focused directly on the lower threshold (45 cm above ground level).
3. **Camera 3 (Checkpoint Line):** Focused directly on the upper threshold (2 m above the start line).

7. Conclusion and Recommendation

Hosting the Nepal Zonal for Techniche 2026 (IIT Guwahati) presents an outstanding opportunity to strengthen the academic reputation of GoldenGate International College. It offers hands-on engineering exposure to participants while establishing our college as the official regional center for international technical competitions.

We request college management to approve this proposal, allocate the necessary institutional support, and authorize the financial allocation of **NPR 162,000** for successful execution.