

**Proposals for**  
**General Secretary Technology**  
**Technology Students' Gymkhana**  
**Indian Institute of Technology Kharagpur**  
**Academic Session 2024-2025**

**DEVAN SINGH FAUJDAR**  
**22CH10021**

## **PROPOSAL 1: TECHQUEST: EXTENSION OF KSHITIJ TO HIGH SCHOOL STUDENTS**

### **Overview:**

The proposed extension of Kshitij, IIT Kharagpur's annual techno-management fest, will feature a quiz competition for high school students. The event will have two rounds - a preliminary round at participating schools and a final round at the IIT Kharagpur campus. By partnering with schools, Kshitij aims to not only reach more students but also inspire young minds to explore the fields of technology and management with creativity and competitive spirit. Kshitij's core purpose is to encourage innovative thinking, relentless creation, and the joy of discovery and learning to foster a new generation of thinkers and leaders.

### **Proposal:**

1. Introduction of a Quiz Competition: Launch a quiz for high school students, leveraging the Fibonacci series for a marking scheme. This innovative approach aims to make the competition both challenging and exciting.
2. Collaboration with Schools: Actively engage with schools to encourage them to participate in this event, providing an opportunity for students to compete on a prestigious platform like IIT Kharagpur.
3. Two-Tiered Competition Structure: Organise the quiz in two rounds to comprehensively assess the participants' abilities. The initial round will be conducted at the school level, followed by a grand finale at IIT Kharagpur.
4. Resource and Training Support: Offer preparatory resources and workshops for participating students and schools to ensure they are well-prepared for the competition.

### **Impact:**

1. Enhanced Participation and Diversity: By including high school students, Kshitij will see fostering a culture of innovation and creativity among younger minds.
2. Educational Enrichment and Exposure: Participants will gain valuable exposure to the technological and management realms, enhancing their academic experience and inspiring future career paths in these fields

**Groundwork:**

1. Contacts were established with over 30 schools across the region to introduce the extension of the quiz competition at the Kshitij Fest.
2. Received positive feedback from schools, indicating strong potential for collaboration and enthusiastic participation.
3. Preliminary outreach efforts have created a solid foundation for integrating high school students into Kshitij Fest.

## **PROPOSAL 2: INTER IIT TECH ODYSSEY**

### **Overview:**

IIT Kharagpur boasts the most exceptional student community when it comes to technology. The remarkable performance of our Inter IIT Contingent serves as evidence supporting this assertion. The Inter IIT competitions spark innovation and excellence in the tech realm. Yet, the narratives of the participants and their journeys often go unnoticed. This proposal introduces "The Inter IIT Odyssey," A section under the Technology Students' Gymkhana official website where former Inter IIT participants can unveil their experiences, igniting inspiration for the upcoming generation to participate in this grand tech event. This section is designed to raise awareness and inspiration about the event and fulfil educational objectives.

### **Proposal:**

1. Providing educational resources specific to the domain of each event will empower students with the knowledge and skills necessary to excel.
2. Inter IIT captains will contribute by sharing their experiences, offering encouragement, and inspiring students to overcome challenges and pursue their aspirations in the realm of technology.
3. Participants will offer insights into preparation techniques, strategies, and navigating the Inter IIT journey.
4. This webpage will also have important links to all the major competitions that are held all year round.

### **Impact:**

1. Provides guidelines and pathways for aspiring students who want to enter into the domain of Inter IIT Tech Meet.
2. Expands opportunities for students to explore various tech-related events beyond Inter IIT, improving the technology skills of the community.
3. Fosters a sense of community and inspiration by providing valuable guidance and real-world experiences for navigating the Inter IIT journey.

**Groundwork:**

1. The past Inter IIT Tech Captains and Technology Coordinators of Technology Students' Gymkhana have been consulted for this initiative and have shown interest.
2. Have consulted with the respective authorities of Technology Students' Gymkhana for the feasibility and received a positive response.

### **PROPOSAL 3: FOSTERING CYBER SECURITY CULTURE ON CAMPUS**

#### **Overview:**

This proposal aims to bridge the gap by integrating a Cybersecurity Capture The Flag (CTF) competition into the campus' array of events, thereby introducing and familiarising students with the domain of cybersecurity. Just as the Inter IIT competitions have fostered innovation and excellence among tech enthusiasts, the inclusion of a cybersecurity event promises to expand the horizon of technological competitions on campus. This initiative is designed to spotlight cybersecurity and enhance students' educational journey by providing a platform for practical learning and application in this increasingly important field.

#### **Proposal:**

The proposal is to introduce a Cybersecurity Capture The Flag (CTF) competition as part of our institutes' technology competitions. The competition aims to provide students a platform to develop and showcase their cybersecurity skills in a safe and controlled environment.

The Cybersecurity CTF competition will be structured as follows:

1. Companies and experts will conduct workshops to build the foundational knowledge of the students and provide the resources required.
2. An Open IIT competition will be conducted upon the conclusion of workshops and practice sets.
3. The competition will feature challenges across various domains of cybersecurity, including general skills, cryptography, web exploitation, forensics, penetration testing, and more.

#### **Impact:**

1. **Skill Development:** The competition will serve as a practical learning experience, allowing students to apply cybersecurity knowledge in real-world scenarios.
2. **Fostering Community:** The event will contribute to building a cybersecurity community within the college, encouraging knowledge sharing, collaboration, and continued learning among students with shared interests.

**Groundwork:**

1. Connected with the previous Inter IIT captains and received positive responses.
2. Contacted companies for conducting events and workshops like Hack the Box, TryHackMe, Saptang Labs among others.
3. Existing groups in other IITs have been contacted to craft a meaningful progression of these events.

## **PROPOSAL 4: OPEN IIT COMPETITIVE PROGRAMMING EVENT**

### **Overview:**

The proposal aims to launch an Open IIT Competitive Programming Competition, a new initiative to foster coding excellence among students. This competition will be divided into the Beginner and Advanced category. Designed to challenge participants with various programming problems, this event seeks to enhance problem-solving skills, promote a competitive spirit, and provide a platform for showcasing coding talent. Central to its mission; the competition aims to significantly boost the competitive programming (CP) culture at IIT Kharagpur (KGP), nurturing a community of adept problem solvers and innovators.

### **Proposals:**

1. Problem Sets: Develop comprehensive problem sets that cater to different difficulty levels within each category, ensuring participants are adequately challenged.
2. Team Division: The event will be structured into teams of four members, tailored to accommodate the needs of each division.
3. The competition will feature a set of programming problems curated to reflect the format of ICPC competitions.

### **Impact:**

1. Skill Development: Enhances coding and problem-solving skills among students, preparing them for future careers in technology.
2. Team Coordination: Collaborative, competitive programming in a group of four will foster teamwork, problem-solving perspectives, enhanced creativity and accelerated solution development.

### **Groundwork**

1. Contacted several relevant companies and received positive responses.
2. Surveyed among students about the culture and received positive responses
3. Contacted previous ICPC participants about the format and entire structure of the competition



