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DEPARTMENT OF CHEMISTRY

Contesting for the post of
General Secretary Technology
Technology Students' Gymkhana
Indian Institute of Technology Kharagpur (2024-2025)

Proposal 1

Aim:

Introducing a paid subscription model for DIY lab access which aims to promote the culture of hardware modeling, especially considering its upcoming removal as a compulsory course from the curriculum.

Impact:

The subscription model's flexibility allows students to access equipment based on their schedules and academic requirements, enhancing their overall learning experiences. Moreover, the revenue generated from subscriptions can be reinvested to maintain lab equipment, ensuring its optimal functioning and availability. This model also promotes financial sustainability for the DIY Lab, ensuring its long-term operation and accessibility to students.

Furthermore, it provides students with an alternative avenue for hands-on learning and practical experimentation outside of the curriculum, such as in 3D printing, IoT, and automation. Upon completing the academic year, participants will receive certification acknowledging their course completion and excellence in the field. This initiative will also encourage increased student participation in hardware modeling events, including general championships and Inter IIT competitions.

Implementation:

Implementing the paid subscription model for accessing DIY Lab equipment will entail several key steps. Firstly, we will create a tiered subscription structure with affordable pricing options and durations for equipment usage slots. Students can register for subscriptions offline, submitting their equipment usage slot preferences through designated forms or channels. Allocation of equipment usage slots to subscribers will be based on their preferences and availability, ensuring fair access to lab resources. Through effective implementation, we aim to provide students with ongoing access to Tinkering Lab resources while promoting sustainability and operational efficiency.

Groundwork:

Recognizing the importance of DIY labs in nurturing students' creativity and practical skills, I advocate for maintaining their accessibility. These labs provide a crucial environment for students to realize their ideas.

Following discussions with the professor in charge, teaching assistants, and support staff overseeing the DIY labs, we have decided to proceed with the plan, contingent upon securing a significant number of active participants and generating sufficient revenue through paid

subscriptions. This revenue is crucial for the proper maintenance of lab equipment and the provision of necessary resources. A survey form was distributed to gauge students' opinions on this paid initiative, and the response was positive.

Proposal 2

Aim:

I suggest the addition of a new event titled the Game Development event within Open IIT. This event aims to offer students a platform to delve into and actively participate in the dynamic realm of game development.

Impact:

The game development sector is a rapidly expanding industry that covers various elements of technology, creativity, and innovation. The introduction of a game development event will provide students with an avenue to explore this dynamic field and acquire valuable insights and skills. This event will introduce participants to the overtone of game design, programming, graphics, storytelling, and user experience, boosting their creativity and technical thinking. Moreover, involvement in the Open IIT Game Development event will allow students to exhibit their talents, collaborate with peers, and potentially initiate their careers in the gaming industry. This event will also enhance participation in the Inter IIT Tech meets.

Implementation:

The Open IIT Game Development event will follow a collaborative format, akin to other events in the competition. Teams comprising 4-5 members will collaborate to create a playable game within a specified timeframe. To ensure participants are well-prepared, workshops led by experienced mentors will be conducted in the weeks leading up to the event. These workshops will include various facets of game development, such as game engines, programming languages, art and design, sound effects, and project management.

After the workshops, teams will receive a problem statement or theme around which they must develop their game. This challenge will stimulate creativity and innovation, as teams will have the liberty to interpret the theme in their own distinctive manner. Throughout the development phase, mentors will be on hand to offer guidance and assistance to the teams.

Groundwork:

The successive game development events during Inter IIT Tech meets prioritize elevating participation levels to secure podium placements. In light of concerns raised by Inter IIT Game Development event captains regarding inadequate awareness of opportunities, I have spearheaded a collaboration with the heads of the Computer Graphics Society to tackle these challenges and also discussed with company officials interested in providing the problem statement to organize the Open IIT Game Development event. Our proposal involves a series of online workshops, summer programs, and doubt-clearing sessions designed to increase participation and raise awareness among students, particularly freshmen, thereby enhancing engagement in Open IIT and Inter IIT Game Development events.

Proposal 3

Aim:

"VoltRush: Proposal for a Dynamic Remote Controlled Racing Car Event at KSHITIJ, Annual Techno-Management Fest, Indian Institute of Technology Kharagpur."

Impact:

Participants will have the opportunity to demonstrate their agility, problem-solving skills, and strategic planning abilities by efficiently setting up and racing remote-controlled (RC) cars within specified timeframes. This event will cultivate an environment that promotes the practical application of theoretical knowledge in engineering and technology, fostering innovation and creativity. It will allow participants to refine and evaluate their skills in real-time scenarios, preparing them for future professional challenges.

Implementation:

The event implementation plan provides a detailed schedule for registration, abstract submissions, and the race event. It outlines the competition structure and rules, including qualifying and driver specifications. The proposal also details the process for submitting engine and car details, as well as the requirements for the video abstract. Additionally, the proposal ensures a smooth and fair competition. This proposal is in line with the objectives of evaluating agility, problem-solving skills, and strategic planning abilities within the framework of organizing the VoltRush event at KSHITIJ, Annual Techno-Management Fest, Indian Institute of Technology Kharagpur.

Groundwork:-

Extensive groundwork has been undertaken in preparation for the RC racing event to ensure a successful and engaging experience for participants. Communication has been established with the organizers of the IIT Bombay RC Racing event to gather insights on event organization

and expected participation from various regions across India. Additionally, discussions for collaboration have been held with the heads of Team Kart, who have expressed enthusiasm for associating with KSHITIJ in organizing the event. Notably, our campus has witnessed great participation in previous events organized by Team Kart, indicating strong interest and potential for active engagement in RC racing. I also contacted various teams who actively participate in such events to know their interests, thereby we are well-positioned to organize an RC racing event that attracts participants all over the nation.

Proposal 4

Aim:

To cultivate a lively and dynamic tech culture at the Indian Institute of Technology Kharagpur by connecting research scholars, postgraduate students, and professors to guide undergraduate students, we plan to organize regular interactive sessions centered on the latest advancements in the technology field.

Impact:

Through regular sessions on the latest technological advancements, our objective is to offer students valuable insights and updates on emerging trends and innovations. These sessions will act as a platform for students to stay ahead of the rapidly evolving technological landscape and enhance their understanding of relevant topics. Additionally, inviting guest speakers, including faculty members, research scholars, and postgraduate students, will provide students with the chance to learn from field experts, and gain valuable insights about the facilities, research opportunities, and career options provided by the Indian Institute of Technology Kharagpur.

Implementation:

We propose to conduct bi-weekly sessions, with a weekly survey to determine the session topic based on student preferences and resource availability. These sessions will include presentations and discussions on topics related to current advancements in technology. Guest speakers, such as faculty members, research scholars, and postgraduates, will be invited to share their insights and expertise on relevant subjects. The sessions will be open to all students, offering an inclusive platform for learning and interaction. Regular communication and promotional activities will be carried out to ensure broad participation and engagement among students.

Groundwork:

The proposal seeks to establish a connection between undergraduate (UG) students and the expertise of professors, research scholars (RS), and postgraduate (PG) students through interactive sessions. Initial steps have been taken by engaging with professors, research scholars, and postgraduate students, who have agreed to lead these sessions and share insights into their research field. With their guidance and experiences, undergraduate students will gain insights into technological advancements, research opportunities, and laboratory facilities within the institute. These sessions will facilitate connections across different academic levels and provide a platform for interactive discussions, clarification of doubts, and stimulating debates. This initiative aims to enrich the tech culture within the institute and motivate undergraduate students to pursue further exploration and research in their areas of interest.