

Cyber Security

Handbook



Under KLH SAC.

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Vision and objectives

Vision

To create a community of knowledgeable and passionate individuals dedicated to promoting the advancement and understanding of cyber security. By providing educational and networking opportunities, and fostering collaboration and innovation, the club aims to prepare the next generation of cybersecurity professionals, and help protect society from the constantly evolving threat of cyberattacks. The club envisions a future where individuals and organizations are empowered to defend against cyber threats, and where the field of cyber security is recognized as a critical component of national security and economic prosperity. Through its efforts, the club aims to contribute to the development of a safer and more secure online environment for all.

Objectives

The objective of cybersecurity is to protect information and systems from unauthorized access, use, disclosure, disruption, modification, or destruction. This includes protecting against cyber threats such as hacking, phishing, malware, and ransomware attacks. The ultimate goal is to ensure the confidentiality, integrity, and availability of sensitive information and critical infrastructure.

- ❖ **Confidentiality:** Protecting sensitive information from unauthorized access and disclosure.
- ❖ **Integrity:** Ensuring that data and systems are not altered or corrupted.
- ❖ **Availability:** Ensuring that authorized users have access to the data and systems they need.
- ❖ **Authentication:** Verifying the identity of users, devices, and systems.
- ❖ **Non-repudiation:** Preventing denial of actions or events that occur in a network.
- ❖ **Compliance:** Adhering to industry regulations, standards, and laws.
- ❖ **Risk management:** Identifying and mitigating potential threats to the security of systems and data.
- ❖ **Incident response:** Having a plan in place for responding to and recovering from security incidents.

Starting a club

With the help of college management, the Mentor/Faculty in-charge make effort to establish a **Cyber Security** club.

- The college management must select a faculty mentor or mentors to spearhead basic tasks of setting up like garnering interest, communicating purpose and vision, selecting the student body, etc.
- Faculty mentors maintain a database of members with information like the name of the student, class, contact, and role of the student.
- Sufficient awareness and knowledge about the club and its activities should be provided to students before they start their journey in the club.
- To ensure that the club has a minimum of 80 members at any point in time.

- The faculty mentors must clearly define the roles of each particular class group in the club and also make efforts to convey the same to students.
- The faculty mentors must apprise of their efforts to other departments and clubs of the university.
- The faculty mentors must allocate an exclusive notice board or channel of information on **Cyber Security** club activities.
- The faculty mentors must follow the recommended organizational structure for the **Cyber Security Club**.

Club Activities

The following are the activities suggested for the club according to class group and roles of members:

Members (Classes 1st year to 3rd year graduation)

Ethical Hacking and Penetration Testing: Members can learn about ethical hacking and perform simulated hacking exercises to identify and fix vulnerabilities in systems.

CTF (Capture the Flag) Challenges: Participating in online and in-person CTF events, which are competitions that test participants' knowledge of cyber security.

Workshops and Training: Organizing workshops and training to learn about different areas of cyber security such as cryptography, web security, and network security.

Awareness Campaigns: Raising awareness about cyber security issues and best practices among the general public and other student organizations.

Guest Speaker Series: Inviting industry professionals and academics to give presentations on current cybersecurity trends and their experiences in the field.

Community Outreach: Partnering with local businesses and non-profit organizations to provide cybersecurity assistance and educate them about safe practices.

Research and Development: Working on research projects related to cyber security and presenting their findings at conferences and events.

Organization of Activities (2nd Year)

- To take responsibility for conducting and preparing all activities associated with the **Cyber Security** Club in and outside of college. Activities include purposes like Network and Endpoint Security, Access Management, Workshops, discussion, community interaction, and group sessions among many others.
- To initiate discussions with teachers and learners for the inclusion of various cybersecurity-related topics into curricular activities wherever relevant.
- To come up with the ideology of the making events (Hackathons, code chefs, Coding events).
- To create opportunities for learners/members to participate, involve, and understand the Technology's and Workflow. The conducting class will seek the Student Body's permission and approval on the different activities, the learner members will engage in, at KLH SAC hall.
- To create interest in learners in the subject topic which makes them feel curiosity and the spirit of competition in student members.
- To have specific working groups of people administered by the student body in the conducting club to take care of:
 - **Media & Public Relations** - where learners will pass on information about activities involving Cybersecurity and Cyber-crimes to the social and local Media's.
 - **Social Media Management** - where students will monitor social media reviews, ratings, and mentions of Cyber related problems, importance of cyber security and user Privacy.
 - Other working groups based on need.

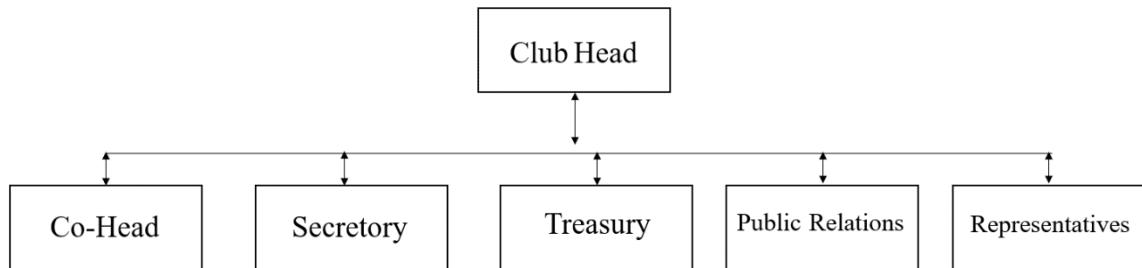
Student Body & Office Bearers (3rd Year)

- To create and maintain a Cyber Security Club Event and Program Calendar while keeping in mind University holidays, festivals, and others.

- To interact with other clubs and faculty mentors in charge of the University in cases where their help may be required.
- To meet regularly to discuss if activities are aligned with the vision and course and do necessary corrections if required.

Organization Structure

A. Proposed Functionaries



B. Roles and responsibilities

Faculty Coordinator

- The Faculty Coordinator is appointed by the College Management to spearhead activities for the **Cyber Security** Club at the University.
- He/she has to appoint the 2nd Year baccalaureate Degree Student Body and assign specific roles within the body through a regular process followed every year.
- He/she must attend all the 2nd Year baccalaureate student Body meetings and guide the discussion along with the Student Head of the body.

2nd /3rd Year Baccalaureate Degree Student Body

- The governing body of the **Cyber Security** Club is its 2nd Year Degree Student Body. The body may consist of the Student Head, Treasurer, and Executive Members. The number of Executive Members can be increased or decreased based on the number of student members in the club.
- The body is required to meet at least once a month and weekly individual report on action taken at the next **Cyber Security** Club meeting. During its meetings, the body reviews and approves the club's plans and projects. Faculty mentor Coordinator advises and must attend all board meetings. Club members may also attend these meetings as observers.
- The members should think of project ideas, encourage club members to participate, and delegate responsibilities. The student body needs to prepare an annual report that describes major actions with activities conducted over the past year. They should keep the original on file and send a copy to the Faculty Coordinator.

Student Head

The Student Head's primary role is to lead the club, making sure that it functions effectively.

Responsibilities include

- Understand the vision and objectives of the **Cyber Security** Club.
- Meet with the outgoing Student Head and student body to review the club's records and discuss its current activities.
- Conduct effective meetings by preparing a detailed agenda that outlines what will be covered and for how long by allowing enough time for reports from other officers and grievances from members.
- Plan creative programs for club meetings well in advance, and arrange for speakers, panel discussions, trips, and entertainment that appeal to a wide range of interests.
- Delegate responsibility to help other members develop their leadership skills and to avoid getting overwhelmed with details.
- Identify members' skills and interests and harness them in club projects.

- Work to ensure that the club's activities and service projects are successfully promoted and carried out.
- Communicate and collaborate actively with the College Teacher Coordinator.

Treasurer

The treasurer of the body maintains accurate financial records. This co-ordinator should be a responsible person.

Responsibilities include

- Deposit all proceeds from fundraising projects.
- Handle the work of preparing and administering the budget.
- Prepare a monthly report that accurately details:
 - Money on hand at the beginning and end of the month
 - Income, with its source indicated
 - Payments, indicating for what and to whom

The treasurer has to prepare an end-of-year report summing up the activities and the budget spent on each of the activities while sending a copy of the same to the College Management. The outgoing treasurer should give the end-of-year report to club members and the incoming treasurer. All treasurers' reports form part of the club's permanent record.

Executive Members

Executive Members help the club carry out activities and projects. The faculty Coordinator appoints the Executive Members to be the single point of interaction between the student body, the conducting class, and its working groups. Additional Executive Members may be appointed as needed.

Executive Members should meet at least once a month to discuss plans and activities and share them with the Student Head. All Executive Member activities and expenses are subject to the student body's approval.

They also have the primary responsibility to help the club function effectively.

Responsibilities include

1. Maintain all club records, such as:

- ❖ Membership
- ❖ Attendance record meeting
- ❖ All-important club papers, budget documents, and reports

2. Take minutes and a clear, concise written record of what was said at a meeting and any actions taken at all meetings of the club. Minutes shouldn't detail every word that was said or how the decisions were reached but should cover these points:

- ❖ Type of meeting (Student body or club meeting)
- ❖ Date, time, and place
- ❖ Presiding Faculty
- ❖ Attendance record meeting
- ❖ Approval and correction of the last meeting's minutes
- ❖ Treasurer's statement
- ❖ Summary of reports from officers
- ❖ Summary of reports from working groups in conducting class or classes
- ❖ Announcements

3. Administrative and liaising functions

- Be the single point of contact for any queries and needs of the conducting class.
- Assign every activity to a club member, and keep track of these assignments.
- Make sure all club members are familiar with the club's activities, events, and goals.
- Establish a schedule of club meetings for the year.
- Notify club members in writing of a meeting, giving the date, time, place, and subject of the meeting. (For example, through e-mail, or text messaging.)
- Prepare agendas for meetings, and follow them.
- Contact members scheduled to make reports at meetings, and ask if they need any help in preparing their reports.
- Ask members for their opinions.
- Keep accurate records, but avoid unnecessary paperwork.

From year two and beyond, interested members from 1st year will be able to volunteer their names for the student body position they wish to officiate in, when in 2nd year.

The selected candidates will assume office as Student Head, Treasurer, and Executive Members on the first day of the new academic year.

Operating a Club

1. Compulsory Meetings

- A. The 2nd Year Student Body has to meet at least once a month.
- B. The Executive Members have to meet separately at least once a month with members from the conducting class or specific working groups in the conducting class.

2. Reporting

- A. The student body may prepare an annual report that describes the major actions taken with activities conducted over the year.
- B. The treasurer needs to prepare an end-of-year report summing up the activities and the budget spent on each of the activities while sending a copy of the same to the College Management.

Suggested Activities of the Club

This section of the handbook suggests ideas for possible activities the club can take up.

- Host Workshops in the institute for skill development and experience.
- Host talks by local companies and organizations' security experts on specific topics of interest.
- Conduct competitions within the Institute.
- Participate in various colleges' technical events and online events and represent our college through the club.

The proposed list of activities

- Arranging talks/lectures by eminent scholars and experts.

- Presentations, Notice Boards, and Exhibitions on educational material provided by the Organization.
- Conducting debates and contests on topics related to cyber security topics.
- Conducting quiz programs on four themes.
- Projects for conservation work.
- Visiting Industries near the college.
- Walk tours in local cities/towns exploring various communities.
- Involving students in giving their ideas for health promotions and providing feedback on existing tourist experiences in the town/city.
- Allocating a particular day of every week as a **Cyber Security** interaction Day with each week being mapped with a particular theme of awareness, promotion, etc. Students who are interested hop on to the college transport system on that particular day and time to go to a particular location every week in line with the theme. This creates opportunities for regular visits and also adds fun, learning, and friendly element to the university on that particular day.

The proposed list of Topics the Club can cover and address

- A career in Cyber security.
- The importance of cyber security & Ethical hacking
- The psychology behind why we travel, get interacted, and social entrepreneurship
- Comparison of other communities
- Cyber security future aspects: The integration of technology
- Specific spotlight on particular locations, case studies.

Proposed List of Events and Gatherings

- Arranging audio-visual programs for government college students, students in other Colleges and the community.
- Casual meetings in university locations by coordinating with clubs of the other Colleges in the vicinity.
- Arranging trips to industrial areas experiences.
- Guided trips to state and national events and festivals around cybersecurity.

Guidelines

1. Creating a safe environment for students

- Develop and enforce a district youth protection policy, including guidelines for reporting allegations of discrimination, physical abuse, sexual abuse, emotional abuse, harassment, and mistreatment to district leaders and/or local law enforcement.
- Include emergency service and local medical information, as well as a 24-hour emergency district "hotline" number.
- Ensure adult supervision for meetings, field trips, activities, and projects.

2. Permission & Support of parents

- The Faculty Coordinator has the responsibility for the supervision and control of all programs and activities organized within the university that involve minor travellingg outside their local community or overnight stays. The information must be communicated to parents and their permission sought.
- When students are traveling out of the state of home residence or out of the home country, it is a must to take the written permission/approval of parents and legal guardians of each student.