PROPOSALS

Sreelekshmi Kishore
(22BT3FP36)

Vice President,
Technology Students' Gymkhana

Indian Institute of Technology Kharagpur
Academic Session: 2025-26

Contents

Proposal 1:

Modification of wellness services for strengthening mental health assistance

1.1 Aim

We plan to shift IIT Kharagpur's student mental health care system into an overarching ecosystem that not only anticipates problems but also offers varied forms of therapy and encourages peer support. This will be achieved by integrating five major initiatives:

- Digital Psychometric Testing Infrastructure: Develop a centralised digital system for the early identification and screening of mental health issues.
- Adoption of Biofeedback Therapy: Implement biofeedback therapy as a technological tool to reduce stress and enhance self-regulation.
- Volunteer Listeners Program: Establish a formal program that provides training to student volunteers to provide empathetic ears and timely assistance.
- Facilitated Support Groups: Organize support groups led by qualified facilitators to promote community healing and encourage open communication.
- Centralized Wellness Website: Create a unified online portal to consolidate resources, provide easy access to services, and expand outreach.

Collectively, these initiatives are designed to create a conducive campus environment where students can access help conveniently, de-stigmatize mental health issues, and ultimately enhance overall well-being and academic resilience.

1.2 Overview and Current Scenario

IIT Kharagpur, like many top-ranked institutes, faces rising challenges in student mental well-being amid a highly competitive and high-pressure environment. Although the Counselling Centre provides individual consultations, its reliance on manual, paper-based assessments limits timely and proactive intervention. Currently, students access the Centre through paper forms and free-form interviews, which delay the identification of urgent issues. This reactive system, combined with inconsistent profiling and cultural stigma, means that many cases of stress, anxiety, or depression go unnoticed until they become severe.

Key gaps in the current mental health assistance landscape include:

- The absence of a proactive, digital screening tool for early mental health intervention.
- Limited alternative treatments (e.g., biofeedback therapy) beyond conventional talk therapy.
- A lack of a formal peer support system and structured group therapy sessions.
- Outdated and dispersed online information about available services.

In summary, while the existing mental health services provide a solid foundation, there is an urgent need to modernize and scale these initiatives. A proactive, data-driven, and integrated approach will better address student anxiety and create a connected support system that intervenes before crises occur.

1.3 Groundwork

To ensure the feasibility and applicability of this proposal, we engaged with various stakeholders and experts from both IIT Kharagpur and other leading institutions. Their insights have reinforced the need for an integrated wellness model and helped shape the organization of the initiatives.

- Rahul Manohar, Core Team Member at SAATHI, IIT Madras, provided valuable input on the model's structure, training, and the sustainability of a volunteer listener program. His experience at IIT Madras assisted in framing a student-run support system that is both accessible and well-integrated with professional services.
- Mr. Vikash Ranjan Jha, Senior Counsellor (Grade II) at IIT Kharagpur, is a licensed clinical psychologist with an M.Phil in Clinical Psychology. Mr. Jha guided the feasibility of incorporating biofeedback therapy and psychometric measures (such as DASS-21) into our system. His expertise confirms the scientific basis and practical application of these elements, as well as the importance of integrating peer support.
- Ms. Juliet Karmakar Mondol, Senior Counsellor (Grade II) at IIT Kharagpur offered critical insights into the operational challenges of the Counselling Centre, particularly regarding intake inefficiencies, data overload, and the need for an early screening tool. Her background in clinical and counselling psychology, along with her qualifications in Applied Psychology and Applied Behavior Analysis, helped refine both the digital and therapeutic aspects of this proposal.
- Drishti, Senior Member at Mind Matters (Manipal University of Higher Education) shared best practices on peer outreach and scaling wellness programs while ensuring inclusivity and empathy, and assisted in finding the best fit for the prospective psychometric tests to be employed, further informing our strategy for the integrated model.
- Sapharu Veena Nikhita, Former General Secretary (Welfare) at IIT Kharagpur's Technology Students' Gymkhana (2023-24), provided key insights into student requirements, highlighting gaps in communication between students and administrators regarding wellness, as well as effective coordination techniques between student and administrative welfare wings.
- In terms of infrastructure and operational costs, professional biofeedback equipment (such as the Thought Technology ProComp2/ProComp5, including EEG, EMG, HRV, and temperature monitoring) is estimated to cost around INR

2.5 lakhs. Training and certification for counsellors would cost approximately INR 30,000–50,000 per person, with a dedicated room setup for biofeedback therapy costing around INR 60,000. For context, IIT Roorkee has successfully implemented HRV-based biofeedback therapy using devices like NeuroSky MindWave and EmWave Pro, priced at roughly INR 55,000 per device, where students experiencing anxiety and panic symptoms undergo 4–6 sessions guided by a professional therapist. Collectively, these insights and cost estimates underscore the viability and necessity of transitioning to a digital psychometric and biofeedback-enabled mental health support system at IIT Kharagpur.

- In line with groundwork, a preliminary list of validated psychometric measures has been obtained from IIT Roorkee to facilitate early identification and organized mental health screening. The inventory includes more than 40 globally established tests in a variety of domains including anxiety, depression, ADHD, PTSD, substance abuse, procrastination, bereavement, personality, self-esteem, and suicide risk. psypack community draft.docx

1.4 Implementation

The following outlines the implementation steps for each component of the proposed mental health ecosystem:

1.4.1 Digital Psychometric Testing Infrastructure

Psychometric assessments provide standardized insights that aid early diagnosis. To streamline this process:

- Student Onboarding: Students will complete a scientifically validated psychometric test (DASS-21) before their first counselling session.
- Automated Analysis: Student responses, securely linked to institutional credentials, will be processed by platform software to generate a structured summary for the assigned counselor.
- Dashboards and Analytics:
  – Student Dashboard: Self-administered assessments with guided instructions.
  – Counselor Dashboard: Visual summaries with sorting/filtering tools and automatic flagging of high-risk cases.
  – Admin Access: An analytics dashboard providing aggregated, anonymized insights for planning and reporting.
- Security and Authentication: Using Azure Key Vault and Azure Active Directory with role-based permissions and integrated Single Sign-On (SSO) to ensure end-to-end encryption and data protection.

1.4.2 Introduction of Biofeedback Therapy

Set up a dedicated biofeedback program within the Counselling Centre to offer an evidence-based, non-invasive intervention for stress and anxiety reduction.

- Therapeutic Rationale: Biofeedback monitors physiological signals (e.g. heart rate, breathing, skin conductivity) and trains students to regulate these responses, thereby enhancing self-regulation and reducing anxiety.
- Access Mechanism: Students will be referred to biofeedback therapy by a licensed counselor based on their psychometric assessment results.
- Dedicated Room Setup:
  – Quiet, sound-minimized environment.
  – Comfortable recliner chair and table.
  – Calming lighting and a real-time feedback display.
- Counselor Training: Short-term certification programs in bio-/neurofeedback (typically 1–3 months) will be arranged. Partner institutions such as the Biofeedback Institute of India and BCIA (Biofeedback Certification International Alliance) will be engaged.

1.4.3 Volunteer Listeners Programme

This programme aims to complement professional counselling by recruiting and training student volunteers.

- Recruitment: Identify empathetic senior undergraduates and postgraduates with strong interpersonal skills.
- Training: Organize workshops (similar to IIT Bombay's partnership with TISS iCALL) focusing on listening skills, basic counselling techniques, and referral protocols.
- Selection Process: Applicants will submit motivation forms, undergo interviews or assessments, and be evaluated on their communication skills and emotional maturity.
- Integration: Collaborate with the Technology Students' Gymkhana and welfare groups to ensure that the programme complements existing support systems.

1.4.4 Facilitator-Led Support Groups

Implement structured group sessions to address common student concerns in a safe, moderated environment.

- Session Organization: Organize support groups (8–12 students per group) around themes such as academic stress, new student adjustment, setbacks, and interpersonal relationships.
- Facilitation: Each session will be led by a qualified counselor or trained facilitator to guide discussions and promote healthy coping strategies.
- Accessibility: Sign-up forms will be distributed via the Counselling Centre's new website and campus email bulletins, with options for anonymity where necessary.

1.4.5 Centralized Wellness Website

Develop an interactive, one-stop portal to consolidate all mental health and well-being resources.

- Unified Access: The website will serve as the virtual front door to the campus wellness system, providing links to individual counselling, biofeedback therapy, support groups, and the volunteer listeners programme.
- Resource Library: Curate self-help resources such as articles, FAQs, and toolkits addressing common issues like academic stress, burnout, sleep disturbances, and homesickness.
- Emergency Services: Prominently display emergency contact numbers for the Institute helpline and national mental health services.
- Interactive Features: Include blogs, vlogs, and an online events/workshop calendar to foster engagement and continuous awareness.
- Mobile Optimization: Ensure the portal is optimized for smartphones and widely publicize it through orientations, emailers, and campus postings.

1.5 Impact

Key impacts include:

- Early Detection & Timely Intervention: Digital psychometric tests will enable early identification of at-risk students, allowing prompt intervention.
- Diversified Treatment Pathways: Incorporating biofeedback therapy provides a modern, non-verbal intervention for therapy-refractory cases.
- Increased Reach through Peer Support: Trained peer counsellors and volunteer listeners will reduce stigma and ease the load on professional staff.
- Community and Belonging: Facilitator-led support groups will foster a sense of belonging and collective coping.
- Seamless Access via a Wellness Website: A centralized, mobile-optimized portal will integrate all wellness resources—services, events, and emergency contacts.

Proposal 2

Institutionalizing Departmental-Level Coordination for Inclusive Placement Outcomes

2.1 Aim

To establish a formal, time-bound mechanism that integrates departmental inputs into the Career Development Centre's (CDC) placement outreach strategy. Under this initiative, each academic unit—through its UG, PG, and RS departmental representatives, along with their respective Training & Placement (T&P) coordinators—will submit a prioritized list of core companies aligned with their discipline and specialization. This collaborative approach aims to bridge communication gaps between departments and the CDC, ensure better representation of core job roles, and significantly enhance placement outcomes, particularly for research-intensive and specialized programs.

2.2 Overview and Current Scenario

Since attaining the status of an Institute of Eminence in 2019, IIT Kharagpur has grown into a vibrant academic ecosystem comprising 21 Departments, 11 Schools, 10 Centres of Excellence, and 12 Research Centers. Each of these units produces graduates who are academically strong, industry-ready and research-oriented.

The CDC has done commendable work in this landscape, having facilitated over 1,615 offers out of 3,000 registered students in the latest placement season. (registered 63% undergraduate and 76% postgraduate and research scholar students combined)

At present, the Placement Committee's outreach efforts are centralized and rely on historical recruiter data, members' inputs, and recruiter-sponsored interest. While effective in many respects, this approach tends to underrepresent specialized or evolving departmental needs, particularly in:

- PG and RS programs in specialized fields (e.g., Metallurgical Engineering, Ocean Engineering, Agricultural & Food Engineering, School of Water Resources, Cryogenic Engineering Centre, etc)
- Interdisciplinary research areas where job roles are highly specialized.
- Departments undergoing rapid changes in UG/PG/RS skillsets due to emerging technologies (e.g., AI/ML in Electrical Engineering, IoT in Mechanical Engineering).

Furthermore, the absence of regular coordination between Training & Placement Incharges and departmental representatives has led to uncoordinated planning across academic levels. As a result, the CDC may miss out on engaging recruiters that align closely with a department's technical training and research output, especially within the PG and RS streams.

2.3 Groundwork

- Insights from conversations with Placement Committee Members—Mr. Devansh Jain, Ms. Pranjal Pratyush Khare, and Mr. Harsh Bongirwar validated the need for departmental inputs to improve students' chances of securing desirable placements.
- Dr. Vinay Patel (T&P In-Charge of the Department of Biotechnology) meticulously explained the internal functioning of departmental T&P, helping assess the feasibility and implementation of the proposal)
- Discussions with Mr. Vinay Bansal (RS Department Representative, Agricultural & Food Engineering), Mr. Srijon Sen (RS Department Representative, Bioscience & Biotechnology), Mr. Nobel Karmakar (RS Department Representative, Mechanical Engineering), and Ms. Baishali Bose (RS Students' Welfare Coordinator to TSG) helped understand the specific challenges faced by the Research Scholar (RS) community during placements.
- Conversations with Mr. Ayush Nayan (PG Technology Coordinator to TSG), Mr. Mayur Kakade (PG Sports & Games Coordinator to TSG), Mr. Shubham Kumar (SSM of Gokhale Hall of Residence), and Mr. Vivek NG (Hall President, Atal Bihari Vajpayee Hall of Residence) brought forward the concerns and needs of the Postgraduate (PG) community regarding placement support.
- Discussions with former Vice Presidents—Mr. Samarth Singh, Mr. Brahmjot Singh, and Ms. Devaki Nandana highlighted the need for a dedicated support layer to assist the CDC in aligning placements with students' academic and professional aspirations.
- IIT Bombay currently runs two structured induction initiatives—the Student Companion Programme for PG students and the Institute Research Scholar Companion Programme for RS students—designed to support their transition and placement journey. A similar model is being considered for adaptation at IIT Kharagpur to cater to the PG and RS communities more effectively.

2.4 Implementation

2.4.1 Monitored Departmental Coordination

Department-Level Coordination Mechanism

- Introduce structured coordination involving:
  – UG, PG, and RS Department Representatives
  – Department's T&P Student Coordinator
  – T&P In-Charge (Faculty)
- Departments will submit a prioritized list of companies relevant to their discipline at least three months before Phase 1, i.e., by September each year.

- These inputs will be integrated into the Placement Committee's company outreach strategy, adding a department-specific layer to the CDC database.
- While departments are not expected to conduct outreach themselves, they will provide the required company details and desired job roles in different specializations.
- This coordinated effort ensures better placement opportunities in alignment with student expertise and departmental strengths.

Structured Monitoring and Review

- Initiate monthly meetings involving T&P In-Charges to review progress, update the recruiter list, and track departmental suggestions.
- Foster accountability and continuous feedback between departments and CDC to enhance overall placement quality

2.4.2 Tackling Placement Challenges for Postgraduate and Research Scholars Students

Postgraduate Students (PG) :

- PG students, often at the institute for a duration of 2-3 years, lack the continuity and peer mentorship that UG students benefit from (e.g., SWG mentors hall seniors).
- To bridge this gap, introduce a Student Companion Programme where 4th-year UG and 2nd-year PG students mentor juniors on Placement processes, CV-building, Sector-specific preparation, and Department-wise placement stats and trends.
- Schedule these sessions during February and March, when the placed batch is still on campus, allowing juniors to leverage first-hand insights and prepare during the summer break.
- This will ensure a structured, peer-led knowledge transfer system within departments and across PG cohorts.

Research Scholars (RS):

- RS students often become ineligible for placements due to timing—PhD students who complete their synopsis seminar and thesis defense before Phase 1 are considered graduates and cannot access CDC opportunities even once before graduating.
- RS students may be allowed to sit for placements during the period between their synopsis seminar and thesis defense, provided they have registered with the CDC, paid the full semester fees, and intend to remain on campus until the placement process concludes.
- Additionally, an integrated placement information portal with prompt notifications and alerts should be created to improve awareness among RS students, who might miss out on notifications on channels like ERP notice boards or MFTP groups (e.g., Naarad App).

2.5 Impact

- Enhanced representation of core companies in departments previously underrepresented in placements. With departmental representatives actively contributing to the recruiter list, these fields can see increased engagement from companies aligned with their core curriculum and research areas.
- Improved placement outcomes for PG and RS students by tapping into roles aligned with their qualifications and skill sets. By incorporating departmental insights, the CDC can target companies offering specialized roles that better match the advanced academic and research backgrounds of these students.
- More equitable workload by distributing responsibility among CDC, departments, and student bodies. By formally involving departments through their T&P representatives, the placement process becomes more collaborative and balanced, improving efficiency and accountability across all stakeholders.

Proposal 3

Enhancing Research and Academic Exposure Opportunities

3.1 Aim

This proposal seeks to significantly expand research engagement and academic exposure among both undergraduate (UG) and postgraduate (PG) students at IIT Kharagpur. The key objectives are to:

- **Provide Early Research Experience:** Offer structured, credit-based research electives that introduce students to research methodologies at an early stage.
- **Enhance Global Academic Exposure:** Revitalize the Student Exchange Program (SEP) to improve international exposure, networking, and cultural exchange.
- **Foster Inter-Level Collaboration:** Establish departmental reading groups to bridge the gap between UG, PG, and research scholar (RS) communities through academic mentorship and collaboration.
- **Address Systemic Gaps:** Resolve current administrative and infrastructural bottlenecks within research and exchange frameworks.

3.2 Overview and Current Scenario

Despite IIT Kharagpur's excellence in academics and research output, most undergraduate students lack structured exposure to research until their final year, primarily through Bachelor Thesis Project (BTPs)/Master Thesis Project(MTPs) or summer internships.

- **Limited Early Research Opportunities:** Undergraduate students currently have scant exposure to available research opportunities, including the application process and requirements for foreign internships. Much of this depends on individual proactiveness, and even with sustained effort, obtaining a letter of recommendation remains uncertain. Consequently, many students struggle to build robust research profiles before their final year, thereby reducing their chances of securing competitive international research placements.
- **Inactive Student Exchange Program (SEP):** Student exchange programs at top universities worldwide provide invaluable opportunities for international networking, academic immersion, and exposure to diverse research methodologies. However, in the past three years, no exchange programs have been conducted at IIT Kharagpur.

  The existing channel—the Semester Away Program (SAP)—places the burden on students to secure independent internships or research positions abroad, which is challenging without established networks. Furthermore, despite being mentioned in the academic calendar, crucial updates regarding application dates, eligibility, and procedural requirements are not effectively communicated, leading to wides

- **Fragmented Academic Collaboration:** Although postgraduate and research scholar students are actively engaged in departmental research, there is no structured mechanism for them to share their expertise or mentor undergraduates. This gap results in valuable insights from advanced research remaining siloed, depriving undergraduate students of the opportunity to benefit from experienced academic guidance.

3.3 Groundwork

- International models, such as the semester-long research electives at the University of Illinois College of Medicine, demonstrate that structured early research exposure significantly enhances student profiles for graduate studies and competitive internships.
- In preparation for this proposal, we engaged with various stakeholders. Mr. Smarak Kanjilal, Advisor at the International Relations Cell, was consulted to identify systemic challenges in the current student exchange program; his insights informed the design of a more robust and proactive exchange framework.
- Discussions with Ms. Swati Ganveer, the current RS representative, confirmed enthusiastic support for the establishment of departmental reading groups. Faculty across several departments were also approached, and they unanimously emphasized the importance of early research exposure and inter-level academic collaboration for nurturing future research talent.
- These interactions, combined with insights from international academic practices, reinforce the necessity of expanding research and academic exposure opportunities at IIT Kharagpur.

3.4 Implementation

3.4.1 Research Projects as Elective Courses

- Course Structure: Introduce elective research projects offering 3 or 4 credits, modeled after B.Tech Projects (BTPs) but available to second and third-year students.
- Flexibility in Design: Professors will have the discretion to structure the course according to their teaching styles and departmental focus. Research topics may be provided in advance, or students can propose their own ideas aligned with departmental research areas.
- Clear Learning Outcomes: Faculty will define explicit learning outcomes and deliverables, such as written reports, presentations, or prototype developments—with both mid-term and final evaluations.

3.4.2 Revamping the Student Exchange Program (SEP)

- Leveraging Existing Collaborations: Utilize current institutional collaborations via Memorandums of Understanding (MoUs) to re-establish a regular cycle of student exchange programs.

- Enhanced Visibility and Communication: Improve the visibility of SEP and related programs (SAIP and SAPP) by implementing regular email updates and establishing fixed timelines for application rounds and procedures.
- Mentorship by Experienced Alumni and Students: Appoint experienced students and alumni who have successfully navigated the exchange process to mentor prospective applicants. This mentorship will cover application procedures, deadlines, eligibility criteria, and practical guidance.

3.4.3 Departmental Reading Groups

- Structure & Administration: Each department will establish reading groups managed by PG and RS representatives, in collaboration with departmental societies, with optional oversight from a faculty advisor.
- Session Frequency and Content: Sessions will be held biweekly or monthly, focusing on current research trends and departmental interests. Postgraduate and research scholar leaders will share their experiences, strategies for building research networks, and insights into successful application to advanced programs.
- Role of Undergraduate Students: UG students will be encouraged to participate actively, ask questions, and eventually co-lead sessions, thus gaining early exposure to advanced research practices.

3.5 Impact

Key impacts are:

- Improved Research Output and Early Exposure: Structured research electives introduced early in the academic journey will empower undergraduates to engage in research well before their final year, fostering robust research profiles and enhancing the quality of UG research contributions.
- Enhanced Global Competitiveness: Revitalizing the Student Exchange Program (SEP) will provide critical international exposure and networking opportunities, strengthening student profiles for prestigious foreign internships, graduate programs, and research fellowships.
- Strengthened Academic Culture and Mentorship: The establishment of departmental reading groups will create formal channels for PG and RS students to mentor undergraduates, share research insights, and facilitate interdisciplinary dialogue. This inter-level mentoring will promote academic camaraderie and improve research preparedness among UG students.
- Systemic Improvements and Administrative Streamlining: Integrating structured research electives and reactivating the SEP will address existing administrative bottlenecks by simplifying application and funding processes.

This will create a more cohesive, research-oriented, and globally connected academic environment at IIT Kharagpur.

Proposal 4

Improving Campus Infrastructure to Support Student Collaboration

4.1 Aim

This proposal aims to address the shortage of inclusive and accessible student co-working spaces on campus by implementing targeted infrastructure and policy changes. We aim to introduce designated co-working areas behind Gymkhana, ensure 24×7 access to the Central Library, open hall common rooms for broader use, and optimize existing areas like Nalanda's ground floor. By doing so, we seek to create a collection of spaces that support academic collaboration, society activities, and continuous learning and therefore enabling students to work more efficiently, collaborate across various halls and participate more deeply in the campus ecosystem.

4.2 Overview and Current Scenario

At IIT Kharagpur, students are intensely involved in a broad variety of academic and extracurricular activities, many of which continue till late night hours. Whether working on course projects, gearing up for competitions and hackathons, conceptualizing ideas for startups, or doing society work, much of student-initiated activity occurs at night. Yet the current campus infrastructure does not really facilitate this.

The majority of common rooms in halls are inaccessible to students belonging to other halls, greatly restricting cross-hall collaboration—a requirement for diverse and effective team formation. Gymkhana has inadequate enclosed or flexible areas for society and club meetings, which frequently induce discussions in noisy or open corridors, far from the ideal for quality work. The Central Library closes at 11pm every night, with access restricted for majority of the students who have academic commitments in those hours. As an alternative, peer institutions like IIT Bombay and IIT Delhi have come a long way in facilitating student teamwork. In IIT Bombay, for instance, academic blocks and central zones offer open-seating areas that are available round the clock for students to easily work on their projects. A number of IITs have co-working lounges, lobbies accessible 24×7, or even casual study areas, thus fostering both student well-being as well as academic productivity.

4.3 Groundwork

- Kailash Chandra Samantaray, Senior Security Inspector, confirmed that the security section has no objections to keeping the Central Library open 24×7. He noted that during mid-semester and end-semester exams, the library already operates around the clock with

additional guard shifts. If an official directive is issued to extend this schedule permanently, the security office is prepared to either reassign personnel or issue a call for new night-shift guards as needed.

- Gymkhana President Jitendra Mahakud acknowledged the frequent challenges faced by student groups in finding space for club meetings and other collaborative activities. He expressed support for the idea of installing modular cubicles behind the Gymkhana building, stating that this would be an effective way to meet the needs of societies, clubs, and independent student teams.
- JSRs Sujit and Nikhitha, the General Secretaries (Welfare) for 2023–24, also reviewed the proposal and offered valuable feedback, aligning with the vision of expanding co-working infrastructure for greater inclusivity and utility.
- In addition, several current governors, heads of societies, and club coordinators shared that they too faced similar space-related constraints during their tenure—especially when preparing for inter-college events, workshops, or internal training sessions.
- Lastly, a large number of regular students—particularly those participating in hackathons, coding marathons, group study sessions, and competitions—regularly encounter the challenge of finding accessible, quiet spaces late at night. This proposal directly addresses those everyday needs and ensures that all students, regardless of club affiliation, have access to spaces that support their productivity and creativity.
- ID card scanners, already utilized during Hall Day events, demonstrate the feasibility of regulated access. Their successful deployment shows that similar scanners can be installed at the entry points of selected hall common rooms to monitor and manage access effectively.

4.4. Implementation

4.4.1 Designated Co-Working Spaces Behind the Gymkhana

Enclosed and semi-open co-working zones will be set up behind the Technology Students' Gymkhana using modular wall systems made from lightweight, impact-resistant Fiberglass Reinforced Panels (FRP). These panels are moisture-resistant, easy to assemble, and customizable. Spaces can be configured as needed to support club meetings, society activities, or collaborative academic work.

4.4.2 24×7 Ground Floor Access to Central Library

The Central Library's ground floor will be kept open 24×7 to accommodate students who prefer night-time study schedules or need a quiet space for project work during late hours.

- Security personnel will be deployed in night shifts, possibly in rotation or through extended contracts, ensuring campus safety is not compromised.

- Only the ground floor will be accessible after normal hours, keeping the annexure building closed for the night to reduce security concerns and maintenance load.

4.4.3 Extended Access to Hall Common Rooms

To encourage collaboration across halls, common rooms located near the main gates of selected halls will be opened to students from outside.

- A digital entry-registration system will be implemented with real-time verification through ID cards.
- A maximum occupancy limit will be enforced to prevent overcrowding.
- This will begin as a pilot initiative in halls where the Hall President, Warden, and Second Senate Member are aligned and willing to facilitate access.
  Time windows (e.g., 9 AM to 9 PM) may initially be imposed, with gradual extension based on student response and maintenance feedback.

4.4.4 24×7 Co-Working Zone at Nalanda (Outdoor Ground Floor)

Given the proximity of Nalanda to upcoming halls like SBP and ABV, it is crucial to provide accessible, round-the-clock co-working spaces in that area.

- The outdoor seating areas on the ground floor of Nalanda will be formally designated as 24×7 collaborative zones.
- Existing ones can be upgraded for comfort (e.g., adding lighting or charging ports).

4.5 Impact

- **Enhanced Academic and Collaborative Productivity:** The availability of dedicated co-working areas will allow students to collaborate more effectively for course projects, startups, or club events. The 24×7 access to the central library, in particular, ensures that students can work according to their most productive hours without limitation.
- **Greater Inclusivity and Cross-Hall Interaction:** Opening hall common rooms to non-residents in a regulated manner helps dissolve hall barriers and supports a more unified student body. It encourages interdisciplinary and cross-cultural collaboration, something often stifled by logistical restrictions in the current system.

- **Reduced Pressure on Gymkhana Infrastructure:** New modular spaces behind the Gymkhana ease the scheduling burden on existing rooms, enabling parallel meetings, club sessions, and practice sessions to occur without conflict.
- **Safer and Smarter Late-Night Campus Use:** With monitored, secured late-night access to academic spaces, students no longer have to work in isolated or poorly lit areas. Having designated 24×7 zones ensures both productivity and safety without compromising institutional oversight.

Proposal 5

Enhancing Student Residential Life through Hall Management Committee Reforms

5.1 Aim

This proposal aims to improve the residential experience of students at IIT Kharagpur through two key reforms in hall management.

- Psychometric-Based Roommate and Hall Allotment System for first-year students: Implement a system that uses psychometric assessments to optimize roommate pairing during allotments, thus enhancing compatibility, mental well-being and social integration among freshmen.
- Streamlined Maintenance Complaint Reporting: Delegate maintenance complaint access to the G.Sec Maintenance to simplify complaints reporting and reduce administrative bottlenecks.

5.2 Overview and Current Scenario

At IIT Kharagpur, first-year undergraduate students are assigned to designated halls, typically in double or triple occupancy rooms. The current roommate allocation process is largely random, sometimes grouped by department or arrival order, and does not systematically capture student preferences. As a result, students generally meet their roommates only on the day of arrival, often leading to mismatches in lifestyle and expectations.

5.2.1 Student Well-being Concerns Due to Roommate Incompatibility

At IIT Kharagpur, first-year undergraduate, postgraduate and research scholar students are assigned to designated halls, typically in double or triple occupancy rooms. Currently, the roommate allocation process is largely random, sometimes grouped by department or arrival order. It does not systematically capture or consider student preferences. As a result, most students meet their roommates only on the day of arrival, often leading to lifestyle mismatches and interpersonal friction.

- Lifestyle Mismatches: Conflicts over sleep patterns, cleanliness, noise levels, and social behaviors frequently arise from incompatible roommate pairings.
- Emotional and Social Stress: Incompatible living arrangements can exacerbate adjustment difficulties, interpersonal friction, and homesickness, negatively affecting overall well-being of students.

- Administrative Burden: Frequent complaints and requests for room transfers put additional strain on hall offices and counseling resources.

5.2.2 Inefficiencies in the Maintenance Complaint Redressal System

Students currently pay Rs. 16,620–20,130 per semester as hall establishment charges. However, there is growing concern over the lack of transparency and responsiveness in the maintenance process. The complaint system is centralized and controlled solely by Hall Managers and supervisors, with no student involvement.

Currently, students lack the ability to directly raise or track maintenance complaints, resulting in significant delays in issue resolution. Additionally, the absence of a feedback mechanism between students and maintenance sections—Civil Construction Maintenance, Electrical Maintenance, Sanitary Section, Water Works Section, and Horticulture Section—further hampers responsiveness and leaves many issues unresolved. These systemic inefficiencies add to students' daily challenges and contribute to increasing dissatisfaction with campus facilities and the overall residential experience.

5.3 Groundwork

- Conversations with Mr. Vikash Ranjan Jha, Senior Counsellor (Grade II) at IIT Kharagpur, highlighted that many first-year students struggle with adjusting to campus life and room conditions. Implementing a preferred pre-allotment system will help create a more seamless and supportive transition for them.
- First-hand accounts from freshman students consistently revealed challenges such as loneliness and discomfort within their own living spaces—barriers that hinder growth and limit opportunities for broader social engagement.
- Dr. Debarati Sen (Coordinating Warden, Allotment, HMC) shared that allotments currently focus on distributing students across halls with no defined procedure for roommate allotment. She expressed interest in the proposal and recommended exploring its technical feasibility.
- Discussions with the General Secretaries Maintenance from different halls of residence revealed that the current Institute Internal Complaints Portal on Apna IIT Kharagpur—where only the Hall Manager has hall-specific login access—creates significant delays and administrative bottlenecks. Their feedback strongly supports delegating complaint reporting to the Hall G.Sec (Maintenance) for more efficient issue resolution.
- Conversations with Mr. Manas Raj (Hall President, Lal Bahadur Shastri Hall of Residence, 2024–2025; Hall General Secretary, Maintenance, 2023–2024), Ms. Anindita Malviya (Hall President, Sarojini Naidu Indira Gandhi Hall of Residence, 2023–2024; Hall General Secretary, Maintenance, 2023–2024), and Ms. Shubhangi Singh (Hall

President, Mother Teresa Hall of Residence, 2023–2024; Hall General Secretary, Maintenance, 2023–2024) provided a comprehensive account of their experiences with HMC during both their tenures. Their discussions underscored the ongoing need for a stronger and more consistent student voice to effectively raise concerns related to basic living conditions.

- Mr. S. Panda, Hall Manager of Sister Nivedita Hall of Residence, mentioned that handling all complaints correctly requires awareness of various maintenance sections and HMC updates, but he welcomed the idea of involving student representatives to help streamline the process.
- Dr. Shubha Verma, Warden of Sister Nivedita Hall of Residence, emphasized that the current random roommate allocation often results in lifestyle mismatches, causing stress among first-year students. She appreciated the proposal's intention to foster a supportive residential environment and enhance the overall well-being of boarders.

5.4 Implementation

5.4.1 Roommate Allotment via Psychometric Matching

Survey and Algorithm Design:

- **Psychometric Questionnaire:** Develop a survey covering: – Daily routines, study, and sleep habits. – Noise and cleanliness tolerance. – Social behavior and personality traits (e.g., introversion/extroversion). – Interests and communication preferences. – Mental health and any special needs (handled with sensitivity).
- **Matching Algorithm:** Implement a weighted scoring system to assess compatibility. The algorithm will aim to place students in a way that fosters new interactions while ensuring a comfortable environment, balancing diversity with compatibility. Such psychometric tools are widely used in corporate companies to build high-performing teams—proving their value in optimizing collaboration.

ERP and Hall Integration:

Integrate the psychometric survey into the existing ERP portal during the onboarding period (June–July). Form roommate groupings based on the matching algorithm, then assign groups to halls according to HMC capacity constraints. Complete the matching process before orientation so that students are informed of their roommate and hall allotments in advance.

Data Management Post Allotment:

Store psychometric data securely within the ERP system under the supervision of the Dean, Student Affairs. Use the data solely for roommate matching and related purposes. Anonymize or

delete the data 4–6 weeks after allotment. Inform students of the data usage, retention, and deletion policies via a clear consent notice.

5.4.2 Introducing Student Involvement in Maintenance Complaints Redressal

This is where we see a clear need — "of the students, for the students, by the students." Fellow students are often best equipped to understand and respond to the urgency of issues their peers face. Redefining the responsibilities of the G.Sec Maintenance to stay well-informed about the workings of the maintenance sections and the complaint redressal process paves the way for faster communication and a more responsive system. This shift ensures that maintenance concerns are addressed with greater efficiency and serves the day-to-day needs of the boarders.

Training and Verification:

- Grant the G.Sec Maintenance access to the complaint portal under the supervision of the Hall Manager.
- Provide comprehensive training to enable effective filing, tracking, and follow-up of hall maintenance requests.
- The G.Sec Maintenance will verify and validate complaints from residents to ensure that only legitimate issues are escalated.

Process Efficiency:

- Delegating complaint reporting to the G.Sec Maintenance minimizes dependency on the Hall Manager's availability.
- This streamlined process enables faster resolution of maintenance issues, improving overall responsiveness and reducing administrative bottlenecks. It also ensures that serious complaints receive greater attention from the HMC, allowing for more effective prioritization and resolution.

5.5 Impact

- **Enhanced Residential Compatibility:** First-year students will benefit from a more compatible roommate environment, leading to improved comfort, reduced conflicts, and better emotional and academic adjustment.
- **Data-Driven Improvements:** Structured feedback from both the psychometric-based roommate system and the maintenance complaint portal will enable hall management to identify recurring issues and trends, facilitating targeted interventions.
- **Streamlined Maintenance Operations:** Decentralizing maintenance complaint handling by involving the Hall G.Sec reduces random allotment errors and relieves the Hall Manager of routine tasks, allowing for more effective oversight.

- **Empowered Student Representation:** By formally involving General Secretaries in operational processes, the initiative strengthens the role of student representatives, improves accountability, and fosters a culture of collaborative problem-solving between residents and hall authorities.