

INDIAN INSTITUTE OF SPACE SCIENCE AND TECHNOLOGY

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Constitution of P.E.G.A.S.U.S.

PROTOTYPING AND ENGINEERING FOR GEOINFORMATICS,
AERIAL SYSTEMS, AND UNIFIED SOLUTIONS

Autonomous Systems Club of IIST

Governing Document and Operational Guidelines

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Definitions

1. **P.E.G.A.S.U.S.:** The official registered acronym for Prototyping and Engineering for Geoinformatics, Aerial Systems, and Unified Solutions, operating as the premier Autonomous Systems Club of the Indian Institute of Space Science and Technology.
2. **IIST:** The Indian Institute of Space Science and Technology, the parent academic institution under whose overarching jurisdiction, ethical guidelines, and administrative regulations the organization legally operates.
3. **Patron:** The designated faculty in charge, officially nominated by the Director of IIST, who holds the highest position of honor, academic oversight, and strategic guidance within the organization. The Patron possesses the ultimate veto power, absolute disciplinary authority, and final approval rights regarding constitutional amendments and executive removals.
4. **General Body:** The complete, collective assembly comprising all officially registered and active members of the club. Inclusion within this body requires strict, continuous adherence to the attendance, participation, and technical contribution thresholds mandated by this constitution. The Secretary General is responsible for maintaining the definitive registry of this body.
5. **Active Member:** An individual within the General Body who consistently meets the mandatory operational criteria, specifically maintaining at least a fifty percent attendance record at official meetings, actively participating in a minimum of one major club event per semester, and making tangible technical or logistical contributions to ongoing club projects.
6. **Office Bearer:** Any formally evaluated and appointed individual who holds a specific executive, managerial, or technical leadership position within the club, as explicitly defined and outlined in Article XI of this governing document.
7. **Executive Committee (EC):** The primary governing and administrative body of the organization, acting under the chairmanship of the President. It is composed of core executive officers and designated branch representatives, and it bears the absolute responsibility for managing day to day operations, authorizing financial allocations, and directing the overarching strategic functions of the club.
8. **Club Chair:** An independent, impartial advisory entity consisting of three foundational core members who do not currently hold any active operational office within the Executive Committee. This distinct body ensures the continuity of club values, provides historical institutional context, and advises the current leadership.
9. **Annual General Body Meeting (AGM):** The supreme deliberative assembly and pivotal gathering convened strictly once per academic year. It serves as the primary democratic platform where the General Body critically reflects on past progress, ratifies strategic roadmaps, approves audited financial statements, and debates formal constitutional amendments under the chairmanship of the Patron.

10. **General Body Meeting (GBM):** A formal, scheduled gathering where all active members of the club convene to discuss broad organizational matters, project updates, and internal policies. It is meticulously facilitated by the Secretary General, who must provide mandatory prior notification to all members regarding the official agenda, date, and physical or virtual venue.
11. **Club Activity Meets:** The mandatory biweekly operational assembly restricted to Executive Committee members. This meeting serves as the primary forum for high level strategic deliberation, collaborative decision making, resource allocation, and the logistical coordination of all ongoing technical projects and upcoming events.
12. **Selection Committee:** A dedicated, strictly impartial body appointed under the direct supervision and guidance of the Patron. This committee is solely responsible for rigorously evaluating applications, conducting interviews, and appointing highly capable individuals to all executive and administrative club positions during the annual leadership transition.
13. **Quorum:** The minimum mandatory attendance required to officially conduct club business, hold binding votes, and pass constitutional or financial resolutions. For all Executive Committee meetings, this threshold is strictly defined as at least fifty percent of the total appointed committee members being actively present.
14. **Internal Auditor:** A designated individual responsible for rigorously verifying the monthly financial statements compiled by the Treasurer. The Internal Auditor operates as an independent checkpoint to ensure pristine financial transparency and strict adherence to institutional monetary policies prior to final executive approval.

Preamble

We, the members of P.E.G.A.S.U.S. (Prototyping and Engineering for Geoinformatics, Aerial Systems, and Unified Solutions), in order to form a collaborative, interdisciplinary, and innovative Autonomous Systems Club at the Indian Institute of Space Science and Technology (IIST), do hereby establish this Constitution.

Recognizing the transformative potential of unmanned aerial vehicles, robotics, and smart systems in shaping the future of technology and society, we are dedicated to exploring the limitless applications of autonomous systems. We seek to advance drone technology, foster continuous research, and cultivate a culture of technical excellence within our student community.

Through our collective endeavors, we commit to bridging the gap between theoretical knowledge and practical engineering. We strive to provide a robust platform for hands-on prototyping, where members can hone their analytical skills, ignite their creativity, and push the boundaries of modern geoinformatics and aerial solutions. Furthermore, we are devoted to nurturing the next generation of engineers by emphasizing leadership, encouraging seamless teamwork, and promoting a strong sense of social responsibility and ethical engineering practices.

Firmly bound by the academic integrity, core values, and visionary ethos of IIST, we solemnly pledge unwavering adherence to the institute's rules and regulations. In pursuit of these high ideals, we lay down this document as our guiding foundation and the enduring framework for our organization.

1 Article I - Name of the Club

The official name of the Autonomous Systems Club at the Indian Institute of Space Science and Technology (IIST) is P.E.G.A.S.U.S., an acronym that proudly stands for Prototyping and Engineering for Geoinformatics, Aerial Systems, and Unified Solutions.

More than a title, this name serves as a comprehensive blueprint for the organization's technical pursuits and guiding philosophy. It represents a multidisciplinary approach to modern engineering:

- **Prototyping and Engineering** underscores our fundamental commitment to hands-on development, ensuring that our members move beyond theoretical concepts to build, test, and refine tangible, working models.
- **Geoinformatics and Aerial Systems** highlight our core domains of expertise. By merging the intricacies of spatial data analysis and Earth observation with the cutting-edge mechanics of unmanned aerial vehicles (UAVs), we operate at the forefront of autonomous systems technology.
- **Unified Solutions** reflects our ultimate objective: to seamlessly integrate hardware, software, and data. We do not just build drones; we design holistic systems capable of addressing complex, real-world challenges.

Furthermore, the name draws profound inspiration from the mythical winged horse, Pegasus, a timeless symbol of flight, swiftness, and unbounded imagination. Just as Pegasus conquered the skies, our club aspires to elevate student innovation, pushing the boundaries of what is possible in robotics and aviation.

By uniting advanced autonomous systems with geospatial intelligence, P.E.G.A.S.U.S. stands as a testament to the pioneering spirit of IIST. It embodies a culture where creativity, rigorous engineering, and visionary thinking take flight, shaping the next generation of leaders in autonomous technology.

2 Article II - Objectives and Purpose

The primary purpose of P.E.G.A.S.U.S. is to cultivate a vibrant, interdisciplinary ecosystem that fosters a deep-rooted passion for unmanned aerial vehicles (UAVs) and autonomous systems. We welcome students and enthusiasts from all academic backgrounds and technical proficiency levels, from absolute beginners to advanced engineers. Operating as a hub for creativity and engineering excellence, the club's overarching mission is to inspire, empower, and equip its members to become future leaders and innovators in aerospace technology and related disciplines.

To achieve this vision, P.E.G.A.S.U.S. is dedicated to the following core objectives:

- **Fostering Technical Excellence:** To comprehensively develop our members' skills, theoretical knowledge, and technical creativity in the design, fabrication, programming, and operation of drones and autonomous systems.
- **Bridging Theory and Practice:** To provide a hands-on environment where students can translate classroom academics into real-world engineering solutions through rigorous prototyping, testing, and system integration.
- **Promoting Competitive Spirit:** To facilitate opportunities for members to represent IIST in national and international hackathons, design challenges, and autonomous systems competitions, thereby testing our innovations against global standards.
- **Advancing Interdisciplinary Innovation:** To encourage research and development at the intersection of aerial platforms, artificial intelligence, and geoinformatics, pushing the boundaries of what unified autonomous solutions can achieve.
- **Cultivating Leadership and Collaboration:** To build an inclusive culture of teamwork, peer-to-peer mentorship, and open knowledge sharing, ensuring that members develop the essential soft skills required for successful project management and collaborative engineering.
- **Empowering Career Readiness:** To prepare members for impactful careers in the aerospace, robotics, and geoinformatics industries by offering exposure to modern engineering tools, industry trends, and professional networking opportunities.

3 Article III - Fundamental Rights

Every registered member of P.E.G.A.S.U.S. is guaranteed certain foundational rights to ensure a fair, safe, and highly productive environment. The club is unequivocally committed to upholding these principles across all its operations, projects, and internal communications.

- **Section 1. Equal Opportunity and Fair Access:** All members shall have equitable access to participate in club activities, utilize club resources, and seek leadership roles. Discrimination on the basis of academic course, engineering branch, year of study, background, or any other personal characteristic is strictly prohibited. The club operates on a fair and egalitarian foundation, ensuring every member has an equal platform to contribute and succeed.
- **Section 2. Freedom of Expression and Constructive Discourse:** Members possess the absolute right to freely express their technical ideas, project proposals, and organizational opinions in a respectful, professional, and constructive manner. Recognizing that innovation thrives on rigorous debate, the club actively encourages constructive criticism and the open exchange of diverse engineering perspectives, provided it is delivered without hostility or personal prejudice.
- **Section 3. Right to Education, Skill Development, and Safety:** The club prioritizes the continuous educational growth of its members. Members have the right to access technical training, skill-building workshops, and structured project mentorship. Furthermore, members have the fundamental right to a safe operating environment. The club shall ensure all members are thoroughly educated on safety protocols regarding UAV operation, battery handling, and hardware fabrication, with strict safety measures enforced at all times.
- **Section 4. Intellectual Property and Fair Attribution:** The intellectual property, original hardware designs, and software code of all members shall be rigorously respected. Proper credit and formal recognition must be unequivocally granted for individual and collaborative contributions to club projects, research papers, and competition entries. Additionally, the club advocates for the ethical use, proper citation, and responsible contribution to open-source materials.
- **Section 5. Privacy, Data Protection, and Confidentiality:** Members have a guaranteed right to privacy regarding their personal information. Personal data, academic schedules, and private communications shall not be disclosed without explicit authorization. Members are equally bound to respect the confidentiality of proprietary club projects, strategic competition data, and unreleased research, ensuring sensitive internal data is protected from unauthorized external distribution.

4 Article IV - Emblem, Slogan and Motto

- **Section 1. Official Emblem:** The official emblem of the P.E.G.A.S.U.S. club shall consist of a distinct and standardized design. It must prominently feature the registered club name, incorporate visual imagery representative of advanced autonomous systems and geoinformatics, and clearly signify our association with the Indian Institute of Space Science and Technology (IIST). The emblem serves as the primary visual identity of the organization, reflecting our commitment to aerial innovation, technological synergy, and engineering excellence.
- **Section 2. Authorized Use of Name and Emblem:** The official name, acronym, and emblem of the organization are the exclusive property of the club. Their usage is strictly restricted to official club communications, sanctioned events, approved merchandise, and verified academic activities. Any unauthorized reproduction, commercial use, modification, or external application claiming endorsement requires prior written approval from the active Executive Committee. Members must uphold the dignity of the emblem in all public and digital spaces.
- **Section 3. Slogan:** The official slogan of the club, serving as a dynamic and public declaration of our mission, shall be: "Innovating the Skies, Empowering the Future". The slogan shall be utilized in promotional campaigns, outreach programs, and public media to concisely encapsulate the forward looking spirit of the club.
- **Section 4. Motto:** The guiding motto of the organization, representing our core philosophical and academic driving force, shall be: "Autonomy in Altitude". The motto shall serve to inspire our members, ground our ethical principles, and guide the overarching strategic vision of all research and club endeavors.

5 Article V - Annual General Body Meeting

- **Section 1. Purpose:** The Annual General Body Meeting (AGM) serves as the supreme deliberative assembly and the most pivotal gathering of the academic year, where all registered club members convene to discuss vital organizational matters, critically reflect upon the progress achieved over the preceding year, and strategize for future endeavors. This meeting acts as the primary democratic platform for fostering open dialogue, ensuring leadership accountability, driving collective decision making, and facilitating the free exchange of innovative ideas among the entire membership base.
- **Section 2. Timing and Frequency:** The AGM shall be convened strictly once every academic year, preferably scheduled at the beginning of the even semester, or at an alternative time deemed structurally suitable by the Executive Committee to ensure maximum attendance. A formal notice specifying the exact date, time, and physical or virtual venue shall be formally communicated to all members through official institutional channels at least fourteen days in advance of the scheduled meeting.
- **Section 3. Agenda:** The formal agenda for the AGM shall be meticulously structured and comprehensive, encompassing crucial administrative and operational aspects of the club. Standard agenda items shall include a thorough review of the past year activities, a transparent presentation of the financial status, executive leadership transitions or selection procedures if applicable, and the ratification of the strategic roadmap for the upcoming year. All club members are strongly encouraged to formally propose additional agenda items to the Executive Committee well in advance of the convening date to ensure their voices are heard.
- **Section 4. Chairmanship:** The AGM shall be officially chaired by the Patron of the club, who holds a position of utmost honor, academic oversight, and strategic guidance within the organization. The designated faculty in charge, as officially nominated by the Director of IIST, shall assume the esteemed role of the Patron. The Patron will preside over the assembly, ensuring parliamentary order, enforcing fairness in all debates, and guaranteeing strict adherence to the published agenda and institutional guidelines.
- **Section 5. Reporting:** The outgoing and active Executive Committee members are mandated to present comprehensive and detailed reports regarding the club activities, technical achievements, project milestones, and an audited financial statement during the AGM. Following the formal presentations, the floor shall be opened to all members, who possess the full right to seek specific clarifications, propose constructive suggestions, and participate actively in transparent discussions regarding the overall health and direction of the club.

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- **Section 6. Decision Making:** All significant organizational decisions, including but not limited to formal amendments to this constitution, the approval of the annual budget, and the endorsement of long term strategic planning, shall be thoroughly debated and decided upon by the General Body during the AGM. The President, working in close coordination with the Executive Committee, will facilitate these high level discussions, ensuring that decisions are reached through a fair consensus or a formal voting process when required.
- **Section 7. Minutes:** The official minutes of the AGM shall be diligently and accurately recorded by the Secretary General of the club. These detailed records shall capture the essence of all discussions, the exact nature of the decisions made, and the specific plans agreed upon by the General Body. The finalized minutes must be securely archived and officially distributed to all club members within a stipulated timeframe for future reference, historical documentation, and administrative transparency.
- **Section 8. Adjournment:** The AGM shall be formally adjourned only after every scheduled agenda item has been properly addressed, all member grievances or questions have been heard, and all relevant operational decisions have been finalized. The Executive Committee, operating in close collaboration with the Patron, shall bear the responsibility of ensuring that the final outcomes, action items, and directives of the AGM are appropriately and swiftly communicated to the entire membership body for immediate implementation.

6 Article VI - Executive Committee and Club Activity Meets

- **Section 1. Executive Committee (EC) Structure and Governance:** The primary governing body of the P.E.G.A.S.U.S. organization shall be the Executive Committee. This committee is composed of several designated executive officer positions, specifically: President, Vice President, Secretary General, Joint Secretary, Treasurer, and the Corporate and Alumni Relationship Lead. All members of the Executive Committee shall be formally elected in strict accordance with the selection procedures detailed previously in Article VI. Furthermore, to ensure comprehensive representation across the student body, each academic course, branch, and year will elect a dedicated representative. These representatives are to be nominated by their respective branch members or existing class representatives, with the final official approval and appointment granted exclusively by the Patron.
 - **The Club Chair:** The Club Chair shall consist of three foundational core members who do not currently hold any official active office or operational role within the Executive Committee. These members serve in an advisory capacity to ensure the continuity of club values, long term vision, and established traditions.
 - **Removal of Executive Members:** In the event that a situation arises where the removal of any elected member of the Executive Committee is deemed absolutely necessary due to extenuating reasons such as voluntary resignation, physical or mental incapacity, severe misconduct, or official disqualification, a formal General Body meeting must be convened immediately. The matter at hand will be thoroughly and fairly discussed during this General Body meeting, allowing for complete transparency and due process. Subsequently, a comprehensive and highly detailed report regarding the issue, including all testimonies and evidence, will be submitted directly to the Patron. The Patron holds the ultimate and binding authority to make the final decision regarding the standing of the member in question.
- **Section 2. P.E.G.A.S.U.S. Club Activity Meets:** The biweekly assembly of the Executive Committee members functions as the primary operational forum for strategic deliberation, comprehensive decision making, and the logistical coordination of all club activities and initiatives. These regular meetings are vital for maintaining organizational momentum. All pivotal decisions, financial approvals, and major operational shifts concerning the club must receive explicit, formal approval from the President of the Executive Committee during the course of the meet before any subsequent action can be implemented.

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- **Section 3. Attendance, Quorum, and Participation:** All elected and appointed Executive Committee members are strongly encouraged and fundamentally expected to attend these biweekly meetings consistently. To ensure that decisions accurately reflect the collective will of the leadership, any official meeting requires a minimum quorum of at least 50% of the total Executive Committee members to be physically or virtually present. If this quorum is not successfully met, the meeting cannot proceed with binding votes and must be formally rescheduled to a more accommodating time. Continued unexcused absences may result in a formal review of the member's standing within the committee.
- **Section 4. Meeting Coordination and Agenda Management:** The primary responsibility for orchestrating and conducting a highly successful, efficient club meet rests entirely with the Secretary General. Consequently, the Secretary General is uniquely responsible for deciding the optimal timing, format, and date of the meeting in direct consultation with the President. During these assemblies, in-depth and structured discussions regarding club related issues, upcoming events, and financial statuses will take place, ensuring that all members are actively heard and satisfied with the final outcomes. To facilitate adequate preparation, specific topics for discussion and the formal agenda must be officially shared with all committee members at least two days in advance of the scheduled gathering. If a particular issue on the agenda directly pertains to a specific club role or external department, the designated head or official representative of that role must be present at the meeting to provide necessary insights and updates.
- **Section 5. Minutes, Documentation, and Internal Communication:** Comprehensive and highly accurate minutes of each committee meeting must be meticulously prepared by the Secretary General. These documents should clearly outline attendance records, key discussion points, formal motions proposed, voting outcomes, and assigned action items. Once completed, these official minutes must be promptly shared with all Executive Committee Members to ensure complete transparency and operational alignment. Additionally, all approved minutes shall be securely archived for future reference and organizational continuity.

7 Article VII - Amendment Rules

- **Section 1. Proposal of Amendments:** Any officially registered member of the club possesses the right to formally propose an amendment to this governing document. To be considered, all proposed constitutional amendments must be submitted in writing to the Secretary General and the Executive Committee well in advance of a scheduled General Body Meeting. The formal proposal must explicitly outline the current constitutional text, the exact proposed modification, and a detailed rationale justifying the necessity of the change to the organization.
- **Section 2. Amendment Procedure and Voting Protocol:** All proposed constitutional amendments must be formally presented, thoroughly debated, and subsequently voted upon by the General Body during an official General Body Meeting. This specific session must be directly chaired and overseen by the Patron. In order for an amendment to successfully pass the general assembly phase, it must be ratified by a democratic majority, requiring the affirmative support and voting approval of at least fifty percent of the registered members actively present at the meeting, assuming standard quorum requirements are met.
- **Section 3. Patron Approval and Institutional Compliance:** The passage of an amendment by the General Body serves as a formal recommendation and does not immediately enact the change into club law. Following the affirmative vote of the assembly, the proposed amendment must be submitted directly to the Patron for a comprehensive final review. The Patron is tasked with evaluating the amendment to ensure it aligns perfectly with the core academic values, safety standards, and administrative regulations of the institute. The amendment shall only become official and binding upon receiving the explicit, formal approval of the Patron.
- **Section 4. Enactment and Official Documentation:** Once the Patron grants final approval, the constitutional amendment is considered fully ratified and immediately takes effect across all club operations. The Secretary General is subsequently responsible for officially integrating the approved legislative alterations into the master copy of the constitution. To maintain complete organizational transparency, the updated document must be promptly archived and formally circulated to all current Executive Committee members and the broader General Body.

8 Article VIII - Selection Rules and Procedures

- **Section 1: Term of Office**

- 1.1 The official term of office for all executive bearers within the organization shall continuously span two academic semesters, which equates to exactly one full academic year. At the immediate conclusion of this designated tenure, a formal and structured selection procedure will be initiated to evaluate and appoint capable individuals to fill all executive and administrative club positions, thereby ensuring a seamless transition of leadership and operational continuity.

- **Section 2: Conduct of the Selection Process**

- 2.1 A dedicated Selection Committee, appointed under the direct supervision and guidance of the Patron, will rigorously manage and conduct the entire selection process. This committee will be actively supported by the outgoing Executive Committee members who are not seeking reappointment. The Selection Committee bears the absolute responsibility for maintaining transparency, fairness, and strict impartiality throughout all phases of the evaluation procedure.
- 2.2 Any attempt at undue influence, falsification of credentials, or procedural tampering by applicants or current members will result in immediate disqualification from the selection process. The Patron, acting in close consultation with the Selection Committee and senior club members, holds the ultimate authority to determine and execute appropriate disciplinary actions for any such misconduct.

- **Section 3: Eligibility for Executive Positions**

- 3.1 Applicants seeking to be appointed to executive committee positions must be currently enrolled higher education students at the institute. Eligible candidates strictly include students currently in their second year of the B.Tech. program or higher, as well as students actively enrolled in M.Tech. and Ph.D. programs. Consistent academic standing and active prior participation in club activities will be heavily weighted during the evaluation.
- 3.2 In the unique circumstance where no senior candidates are available, or if the applicant pool lacks individuals deemed fully suitable for the demanding role of President as specified in Section 3.1, the Selection Committee reserves the right to formally authorize exceptional second year B.Tech. students to apply and be considered for the highest executive position.

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- **Section 4: Evaluation and Appointment Process**

- 4.1 The final appointment of office bearers will be determined through a comprehensive and holistic evaluation process conducted solely by the Selection Committee. This multi-stage process shall include a thorough review of formal written applications, an assessment of past technical and administrative contributions to the club, and structured panel interviews. The Selection Committee will deliberate carefully and finalize appointments based entirely on individual merit, demonstrated leadership potential, and profound alignment with the core values of the organization.

- **Section 5: Resolution in Conflict Situations**

- 5.1 In the event of severe internal conflicts, identified procedural irregularities, or unforeseen circumstances that fundamentally compromise the integrity of a specific appointment, the initial selection decision for that respective role shall be immediately nullified. Under such critical conditions, the Patron and the Selection Committee will mandate and initiate a completely renewed evaluation procedure for the affected posts to guarantee a just, transparent, and universally accepted outcome.

9 Article IX - Finance Rules

- **Section 1: Utilization of Club Resources and Funds**

- 1.1 The collective financial resources, physical property, hardware components, and total accumulated income of the organization shall be utilized strictly and exclusively for the advancement of the established technical and academic objectives of the club. Under no circumstances may any portion of the club property or financial assets be disbursed, distributed, or diverted, either directly or indirectly, for the personal benefit or private use of any individual member.
- 1.2 Legitimate exceptions for financial disbursement exist solely in good faith scenarios where funds are utilized explicitly to further official club operations, such as component procurement, project prototyping, or competition logistics. Any such expenditure rigorously mandates the prior written approval of both the active Treasurer and the President of the Executive Committee. Furthermore, all operational proposals necessitating the utilization of club funds must be formally presented, thoroughly debated, and officially approved by the committee during scheduled club activity meets before any transaction is initiated.

- **Section 2: Comprehensive Financial Oversight**

- 2.1 The President holds the definitive executive authority and is formally empowered to conduct unscheduled reviews, request detailed ledgers, and initiate comprehensive inquiries into all financial activities of the club. This mechanism provides a robust, continuous layer of internal oversight to ensure absolute fiscal responsibility, transparency, and strict adherence to the broader financial guidelines set forth by the Indian Institute of Space Science and Technology. Furthermore, the Patron retains the unconditional right to inspect all financial logs and hardware inventories at any given time to guarantee institutional compliance.

- **Section 3: Emergency Financial Decisions and Contingencies**

- 3.1 The organization acknowledges that unforeseen operational contingencies, such as sudden equipment failures during critical project testing or unexpected logistical expenses during external hackathons, may demand immediate financial intervention. In these strictly defined emergency situations requiring rapid financial liquidity, the Secretary General is formally authorized to grant the Treasurer permission to withdraw or allocate a maximum emergency threshold amount of exactly INR 5000 from the central club fund.

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- 3.2 Any emergency transaction executed under this exceptional provision is subject to immediate and rigorous post transaction scrutiny. The emergency expenditure, along with all associated physical or digital receipts and a detailed justification report, must be formally presented, debated, and explicitly ratified by the General Body or Executive Committee during the immediate subsequent club activity meet.

- **Section 4: Monthly Auditing, Reporting, and Accountability**

- 4.1 To maintain pristine financial health and foster a culture of organizational transparency, the financial accounts of the club shall undergo a mandatory and rigorous internal audit at the conclusion of every operational month. The Treasurer bears the primary responsibility for compiling a highly detailed statement of monthly accounts, accurately reflecting all incoming funds, approved expenditures, hardware purchases, and outstanding liabilities.
- 4.2 This internally audited financial statement must be formally reviewed, signed, and structurally verified by the Treasurer, the Secretary General, and a designated Internal Auditor. Once fully authenticated by these three parties, the comprehensive document must be formally presented to the entire Executive Committee for transparent peer review, prior to receiving the final binding signature of approval from the President. All approved monthly financial statements shall be securely archived and remain accessible for future institutional audits or academic reviews.

10 Article X - General Rules and Accountability

- **Section 1: Membership Criteria and Nullification**

- 1.1 Membership within the organization is universally open to all individuals demonstrating a genuine interest in autonomous systems and geoinformatics, without any stringent academic prerequisites. The organization shall strictly operate without any mandatory membership fees. However, active and consistent participation is a fundamental requirement for inclusion in the General Body. Active members are explicitly required to maintain a minimum attendance record of fifty percent for all official meetings and events per semester, actively participate in at least one major club event per semester, and make meaningful technical or logistical contributions to ongoing projects. The Secretary General is mandated to diligently maintain a comprehensive, regularly updated registry of all active General Body members.
- 1.2 The membership of any individual may be subjected to immediate nullification if their conduct is formally deemed detrimental to the academic environment, safety standards, or operational integrity of the organization. The Patron holds the exclusive authority to execute this nullification following a thorough review of the circumstances.

- **Section 2: Inventory Access and Borrowing Protocols**

- 2.1 Core Executive Committee members are granted direct operational access to club components and hardware. Non core members are strictly required to obtain explicit permission from the Joint Secretary of Assets, acting as the Inventory Manager, prior to accessing, testing, or utilizing any equipment. Furthermore, the explicit written permission of either the Secretary General or the President remains an absolute necessity before any hardware or components can be transported outside the designated club premises. Within the club laboratory, authorized usage must be properly logged and communicated to the present core members to ensure component tracking.
- 2.2 In the event that an individual fails to return borrowed club property within the stipulated timeframe, a strict late penalty fee of INR 50 per individual item per day shall be uniformly applied past the due date. In severe cases of non return, loss, or physical damage to club property, the responsible individual is legally liable to reimburse the full monetary value of the component as determined by the Joint Secretary of Assets. Alternatively, the individual may provide a brand new replacement item of identical or superior technical specifications. The Joint Secretary of Assets retains the ultimate discretion to either accept the physical replacement or demand the full financial compensation.

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- **Section 3: Personal Project Liability**

- 3.1 If authorized club inventory or hardware is utilized for personal, non club sanctioned projects and subsequently incurs technical faults or physical damage, the responsible individual is unconditionally required to bear the absolute cost of the component as a strict penalty. This financial penalty is solely applicable to external endeavors and does not apply to damages incurred during the rigorous testing or prototyping of officially sanctioned club projects, provided all standard safety protocols were strictly adhered to.

- **Section 4: Drone Integrity and Safety Standards**

- 4.1 Ensuring the structural integrity and operational safety of all assembled drones is a paramount directive, particularly concerning flagship or major competition projects. In the rare and specific event that the disassembly or cannibalization of a completed drone is required for parts, formal written permission must be explicitly sought and granted by both the Secretary General and the original project members associated with the specific drone assembly prior to any dismantling.

- **Section 5: Facility Security and Access**

- 5.1 To maintain strict laboratory security and equipment safety, only formally elected Executive Committee members are officially authorized to request and receive the keys to the club premises from the campus security personnel.

- **Section 6: Active Status and Strict Accountability Measures**

- 6.1 To ensure the continuous growth and productivity of the organization, all active project teams must submit comprehensive progress reports and conduct formal project updates every two weeks during the academic semester.
- 6.2 The club mandates strict operational accountability to prevent stagnation and resource mismanagement. If the organization fails to conduct any official project meetings, demonstrates zero tangible technical progress, or lacks organized club activity for a continuous span of one calendar month, severe accountability measures will be instantly invoked.
- 6.3 Under such circumstances of prolonged inactivity, the incumbent Executive Committee shall face immediate operational suspension. The Patron, in direct coordination with the college administration, reserves the absolute right to officially dissolve the core team entirely. Furthermore, formal disciplinary or restructuring actions will be initiated by the college administration, specifically through the Dean of Student Activities, to rectify the leadership failure, reallocate club resources, and restore the active status of the organization.

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- **Section 7: Social Media and Public Relations**

- 7.1 The utilization of all official club social media platforms and digital presence is strictly confined to professional promotional activities, technical outreach, and institute approved public relations. These platforms must never be utilized for personal entertainment, informal broadcasting, or individual promotion. Complete administrative access to the official digital handles of the club shall be securely limited exclusively to the Publicity Convener and the President.

- **Section 8: Competition Participation and Asset Retention**

- 8.1 Individuals or teams officially representing the club in any competitive event are strictly required to remit twenty percent of any monetary winning prize directly to the club treasury to ensure sustainable funding for future projects and club infrastructure. In return, the club is committed to extending all possible logistical assistance, covering base entry fees, and providing the necessary high grade equipment for the competition.
- 8.2 Upon the conclusion of any external competition or exhibition, all hardware components, fabricated chassis, and electronics utilized during the event automatically become the permanent property of the P.E.G.A.S.U.S. organization. While entirely voluntary, members retain the option to formally donate personally purchased components to the club inventory; however, this remains completely non obligatory.

- **Section 9: Transparency and Documentation Access**

- 9.1 The Executive Committee is mandated to maintain a perpetually updated master copy of the club constitution, operational rules, and an accurate historical record of all current and past office holders. These comprehensive records must remain readily available and easily accessible for routine inspection by any registered club member or institutional authority at all times to guarantee operational transparency.

- **Section 10: Institutional Compliance and Oversight**

- 10.1 The organization, its leadership, and its general body shall stringently adhere to all overarching rules, safety regulations, and academic guidelines of the Indian Institute of Space Science and Technology. All club operations function directly under the continuous guidance, supervision, and final authority of the Patron, the Dean of Student Activities, the Student Welfare and Outreach Programme, the Head of the Avionics Department, and the Associate Dean of Student Activities and Outreach.

11 Article XI - Roles of Executive, Technical & Managerial Posts

Executive Positions

President

- **Supreme Executive Authority:** To serve as the highest ranking student official of P.E.G.A.S.U.S., exercising overarching executive control over all club operations, technical projects, and administrative decisions. The President holds the ultimate authority to approve, modify, or halt any club initiative to ensure strict alignment with the organization's goals.
- **Vision and Strategic Direction:** To single handedly provide the defining vision, long term objectives, and strategic roadmap for the organization, ensuring complete synergy with the core academic and innovative values of the Indian Institute of Space Science and Technology.
- **Financial and Administrative Command:** To unilaterally dictate budget priorities, oversee major financial allocations in conjunction with the Treasurer, and issue final binding approvals on all resource utilization requests and club wide developmental strategies.
- **External Representation and Liaison:** To serve as the primary, authoritative point of contact and official representative of the club when interfacing with the college administration, the Patron, external corporate stakeholders, and other institutional student organizations.
- **Executive Veto and Oversight:** To seamlessly oversee and forcefully facilitate collaboration among all other in charge roles. The President reserves the exclusive right to exercise an executive veto over decisions made by lower tier committees, technical leads, or project managers if such decisions are deemed detrimental to the club.
- **Meeting Chairmanship:** To formally preside over and dictate the flow of discourse at all Executive Committee assemblies, club activity meets, and General Body meetings, ensuring strict parliamentary order and productive deliberations.
- **Final Arbitration and Conflict Resolution:** In the event of a severe internal dispute, operational conflict, or constitutional ambiguity within any club activity, the President holds the exclusive responsibility and absolute power to arbitrate the matter based on the provisions of this Constitution. All members, regardless of rank, are unconditionally required to abide by the final decision of the President.

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Vice President

- **Second in Command:** To serve as the immediate subordinate and primary strategic advisor to the President, wielding comprehensive executive authority over the internal management and precise technical execution of all club initiatives.
- **Presidential Succession and Delegation:** To unconditionally assume the full role, comprehensive powers, and exact responsibilities of the President in the event of their absence, incapacitation, or temporary inability to perform official duties, thereby presiding over all high level meetings and executive decisions.
- **Operational Oversight and Disciplinary Authority:** To actively manage, coordinate, and strictly oversee the day to day activities of the club. The Vice President is explicitly empowered to monitor the performance of all technical and managerial leads, holding the high level authority to initiate internal disciplinary reviews or operational interventions for underperforming sectors.
- **Strategic Execution:** To diligently support the President in executing complex duties and enforcing constitutional mandates, ensuring that the overarching strategic vision is effectively and aggressively translated into actionable, measurable project milestones.
- **Executive Collaboration and Bridge Management:** To collaborate extensively with all other core office bearers, serving as the critical authoritative bridge between the administrative, financial, and technical wings of the club to guarantee frictionless, unified operations.
- **Official Delegation and Task Force Leadership:** To act as a senior representative of the organization in various official capacities, specifically when directly delegated by the President to lead specialized task forces, negotiate with external technical partners, or enforce new club wide protocols.

Secretary General

- **Chief Administrative Officer:** To serve as the supreme administrative authority of the club, holding absolute and exclusive control over all internal communications, official documentation, constitutional records, and historical operational archives.
- **Logistical Command and Coordination:** To continuously oversee ongoing club activities on a granular logistical level, possessing the authoritative power to dictate project schedules, enforce strict operational deadlines, and ensure synchronized coordination among all project members and distinct technical branches.
- **Membership and Roster Control:** To diligently maintain comprehensive, verified, and centralized registries of all General Body and Executive Committee members. The Secretary General holds the specific executive power to track mandatory attendance metrics and formally mandate the suspension or nullification of memberships for individuals failing to meet constitutional participation thresholds.

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- **Agenda Setting and Meeting Convocations:** To wield the exclusive organizational power to formally convene General Body and club activity meetings. Working in strict concurrence with the President, the Secretary General dictates the official meeting schedules, constructs the binding agenda, and ensures mandatory prior notification is issued to all required attendees.
- **Official Record Keeping and Institutional Reporting:** To bear the vital responsibility of recording highly accurate, legally binding meeting minutes and generating comprehensive performance reports on all club activities. The Secretary General is mandated to present these critical evaluations directly to the Executive Committee and the Patron for institutional review.
- **Policy Formulation and Constitutional Enforcement:** To actively and dominantly participate as a core pillar of the Executive Committee, driving internal policy formulation, structuring administrative frameworks, and holding the authority to ensure all club actions and member behaviors remain strictly compliant with established constitutional bylaws.

Treasurer

- **Financial Management and Budgeting:** To develop, meticulously manage, and strictly oversee the comprehensive annual operating budget of the club. The Treasurer is directly responsible for the precise tracking of all incoming funds, operational expenses, and capital investments related to technical projects and club activities, ensuring absolute financial efficiency.
- **Fundraising and Sponsorship Strategy:** To actively identify high yield fundraising opportunities, aggressively seek out financial grants, and negotiate material sponsorships to sustainably support the technical and logistical needs of the organization. The Treasurer shall spearhead the financial planning and resource allocation for all upcoming flagship events, hackathons, and exhibitions.
- **Transaction Handling and Compliance:** To securely process all financial transactions, vendor payments, and member reimbursements. The Treasurer must maintain highly organized, transparent financial ledgers and physical records, ensuring absolute compliance with the overarching financial policies, auditing standards, and ethical guidelines set by the institute.
- **Expense Approval and Reporting:** To critically review and authorize operational expenses, ensuring they are strictly aligned with the approved club budget. The Treasurer is mandated to present detailed, accurate financial reports during scheduled club activity meetings to keep the executive leadership and general body fully informed regarding the financial health and spending trajectories of the organization.

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- **Account Management and Auditing:** To autonomously manage the designated bank accounts and digital financial portals of the club. The Treasurer must guarantee pristine accuracy in all financial records, seamlessly facilitate the mandatory monthly internal audits, and ensure complete readiness for any external institutional reviews or administrative inquiries.

Director of Corporate and Alumni Relations

- **Strategic Industry Partnerships:** To actively forge, cultivate, and sustain robust professional connections with elite educational institutions, corporate entities, industry experts, and potential corporate sponsors. This role is crucial for continuously expanding the financial resources, technical mentorship network, and external professional opportunities available to the organization.
- **Alumni Network Cultivation:** To construct and meticulously maintain a comprehensive, interactive database of club alumni. The Director must foster strong, enduring relationships with former members, bridging the gap between past and present generations to facilitate knowledge transfer, career guidance, and alumni driven funding initiatives.
- **External Representation and Brand Ambassadorship:** To serve as the polished, professional face of the organization at external collegiate events, technical fests, national conferences, and high level corporate meetings. The Director is tasked with effectively pitching the vision, technical prowess, and overarching achievements of P.E.G.A.S.U.S. to the broader engineering community.
- **Outreach Reporting and Strategy Refinement:** To provide regular, highly detailed updates and analytical reports on the success of ongoing outreach campaigns, engagement metrics, and sponsorship acquisition efforts. These comprehensive reports must be presented directly to the executive leadership and general body, allowing for the continuous refinement of external relations strategies.

Joint Secretary

- **Administrative and Logistical Support:** To serve as the primary operational deputy to the Secretary General, proactively aiding in the flawless execution of critical administrative tasks, detailed project documentation, and the rigorous upkeep of official club records and historical archives.
- **Meeting Coordination and Facilitation:** To extensively assist in the logistical organization, venue booking, and timeline coordination of all official club gatherings, including General Body assemblies, Executive Committee meetings, and technical workshops, ensuring all sessions run seamlessly and strictly on schedule.

CONSTITUTION OF P.E.G.A.S.U.S.

- **Operational Oversight and Inventory Monitoring:** To actively help oversee day to day club activities and laboratory sessions, ensuring a highly productive and organized environment. The Joint Secretary shall also actively assist in monitoring club assets, acting as a secondary checkpoint to ensure that strict operational protocols and equipment safety guidelines are universally followed by all members.
- **Delegated Authority and Succession:** To formally stand in for the Secretary General during their absence, temporarily assuming their full administrative tasks, meeting responsibilities, and operational oversight to guarantee zero interruption in the daily management and governance of the club.
- **Executive Committee Participation:** To serve as a dedicated, core member of the Executive Committee, actively contributing to high level decision making processes, constitutional policy formulation, and strategic planning in close, unified collaboration with the Secretary General and the broader executive leadership.

Management Positions

Project Manager

- **Operational Leadership:** To serve as the primary operational leader for all technical and research initiatives, working exclusively under the strategic guidance and direct supervision of the President and Secretary General to ensure highly efficient, objective driven project management.
- **Strategic Planning and Execution:** To spearhead the comprehensive planning, structural development, and lifecycle execution of all club projects, meticulously defining technical goals, stringent timelines, and measurable operational objectives.
- **Team Construction and Delegation:** To actively construct specialized project teams, delegate complex engineering tasks based on individual member competencies, and enforce a framework of highly effective, interdisciplinary collaboration among all project members.
- **Technical Mentorship:** To provide advanced technical guidance, hands on mentorship, and continuous troubleshooting support to club members, actively assisting teams in overcoming complex hardware and software engineering challenges.
- **Resource Allocation:** To dictate the strategic allocation of physical materials, electronic components, and laboratory resources required for project implementation, working in strict, coordinated consultation with the Joint Secretary of Assets and the Treasurer.
- **Progress Monitoring and Risk Mitigation:** To continuously monitor the developmental progress of all active projects, proactively identifying technical bottlenecks, mitigating risks, and implementing rapid, effective solutions to maintain strict adherence to project timelines.

CONSTITUTION OF P.E.G.A.S.U.S.

- **Documentation and Archiving:** To mandate and rigorously maintain comprehensive technical records of all project details, including CAD designs, source code, flight logs, and detailed project related documentation, ensuring all intellectual property is securely archived.
- **Cultivation of Innovation:** To deliberately cultivate an environment of technical creativity and relentless innovation within the project teams, fostering a progressive culture of continuous learning, experimental exploration, and academic excellence.
- **Status Reporting:** To deliver highly detailed, biweekly analytical reports regarding the exact status, budgetary consumption, and technical progression of all projects directly to the executive leadership and the general body.
- **Showcasing and Presentation:** To orchestrate formal technical presentations, hardware demonstrations, and comprehensive debriefings of completed projects, effectively sharing organizational achievements with the club, the institute administration, and potential external audiences.

Public Relations and Media Head

- **Digital Strategy and Content Planning:** To architect and execute a comprehensive, data driven strategic plan for the digital footprint and social media presence of the club, explicitly defining long term promotional goals, overarching content themes, and rigorous posting schedules.
- **Content Creation and Curation:** To design, curate, and publish highly engaging, professionally crafted, and technically relevant digital content that accurately reflects the innovative endeavors and academic prestige of the organization.
- **Platform Management:** To systematically manage and continuously update the official digital profiles of the club across all critical platforms, including but not limited to Instagram, GitHub, YouTube, and LinkedIn, ensuring a cohesive and dynamic online identity.
- **Audience Engagement:** To actively monitor and manage public engagement, interacting with followers, responding to technical inquiries, and addressing incoming messages in a consistently timely, highly professional, and strictly courteous manner.
- **Event Promotion:** To spearhead the aggressive digital promotion of all upcoming club events, technical hackathons, educational workshops, and recruitment drives, utilizing targeted social media channels to maximize outreach and campus participation.
- **Brand Custodianship:** To act as the primary custodian of the club brand, strictly ensuring that all public facing digital media, graphical assets, and written communications perfectly align with the established branding guidelines and the overarching ethos of the institute.

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- **Digital Networking:** To actively build, leverage, and maintain positive digital relationships with relevant industry professionals, aerospace organizations, institutional media outlets, and peer academic clubs operating within the field of autonomous systems.
- **Performance Analytics:** To provide regular, highly detailed analytical updates and performance reports regarding social media growth, audience engagement metrics, and campaign reach to the executive leadership, enabling continuous refinement of digital strategies.

Logistics Head

- **Infrastructure and Physical Setup:** To comprehensively manage the complex physical requirements, technical infrastructure setup, and overarching resource allocation necessary for the flawless execution of all club activities, hackathons, and intensive technical workshops.
- **Venue Acquisition and Compliance:** To bear the primary responsibility for securing appropriate event venues, formally obtaining all necessary administrative clearances and institutional permissions, and orchestrating the safe, efficient transportation of sensitive club equipment.
- **Event Inventory Management:** To meticulously draft and maintain exhaustive inventory checklists specifically tailored for individual events, guaranteeing the timely availability, secure deployment, and safe return of all required physical materials and technical hardware.
- **Crisis Management and Troubleshooting:** To serve as the primary on site operational authority during all sanctioned events, tasked with instantly troubleshooting any physical logistical failures, technical facility issues, or unforeseen infrastructural emergencies to ensure zero disruption to the scheduled activities.
- **Cross Departmental Coordination:** To work in seamless, continuous coordination with the Secretary General and the technical leads, ensuring that the physical environment perfectly supports the specific hardware testing and operational needs of the autonomous systems being deployed.

Events Head

- **Event Vision and Strategy:** To serve as the primary visionary and chief architect for all internal and external club events. This includes the comprehensive conceptualization, strategic planning, and meticulous oversight of high level technical workshops, rigorous hackathons, drone racing leagues, and academic symposiums.

CONSTITUTION OF P.E.G.A.S.U.S.

- **Structural Planning and Delegation:** To formulate exhaustive event schedules, draft compelling formal proposals for institutional approval, and effectively delegate specific operational tasks to designated organizing committees to ensure maximum efficiency and strict accountability.
- **Interdepartmental Synergy:** To mandate and foster seamless, cross functional collaboration with the Logistics Head, Public Relations Head, and technical leads. This ensures perfect alignment regarding event objectives, budgetary constraints, and the precise, timely allocation of required physical and digital resources.
- **Execution and Quality Control:** To guarantee the flawless, on ground execution of all scheduled activities, maintaining a relentless focus on maximizing participant engagement, ensuring strict adherence to safety protocols, and delivering an overwhelmingly successful experience that elevates the prestige of the organization.

Events Co-Head

- **Operational Support and Deputy Leadership:** To serve as the direct deputy and primary operational support to the Events Head, actively assisting in the exhaustive end to end planning, structural organization, and precise logistical execution of all club activities and technical initiatives.
- **Volunteer Management and Briefing:** To assume direct responsibility for the recruitment, management, and coordination of all event volunteers. The Co-Head must assign clear, specific operational roles and conduct comprehensive briefing sessions to ensure all support staff are fully prepared for the demanding requirements of the event day.
- **Real Time Coordination:** To expertly manage real time, on the ground coordination during events, actively monitoring complex timelines to prevent logistical delays, and overseeing a seamless, highly organized participant registration and onboarding process.
- **Delegated Authority and Crisis Management:** To possess the full authority and required operational knowledge to immediately step in, confidently lead all event operations, and make critical, time sensitive decisions in the event of the absence or temporary incapacitation of the Events Head.

Junior Treasurer

- **Financial Assistance and Ledger Management:** To act as the dedicated financial deputy to the primary Treasurer, providing crucial assistance in all overarching financial matters. This includes active participation in comprehensive budget development, rigorous preliminary review of operational expense approvals, and the meticulous maintenance of transparent financial ledgers.

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- **Funding Acquisition and Cost Estimation:** To actively aid the executive leadership in identifying and securing external funding opportunities, corporate sponsorships, and institutional grants. The Junior Treasurer shall also contribute significantly to the granular financial planning and accurate cost estimation for upcoming club events and major hardware projects.
- **Institutional Compliance and Integrity:** To diligently assist in enforcing absolute compliance with all overarching financial regulations, auditing standards, and operational policies set forth by the college administration, thereby playing a vital role in upholding the uncompromised financial integrity and fiscal transparency of the organization.

Technical Roles

Aerodynamics and Airframes Lead (PG Only)

- **Domain Leadership and Structural Design:** To serve as the supreme technical authority over the mechanical and aerospace engineering domains of the club. The Lead is explicitly responsible for conceptualizing, directing, and validating the overall physical design, structural integrity, and real world aerodynamic performance of all bespoke UAV airframes and experimental platforms.
- **Advanced Simulation and Modeling:** To comprehensively oversee and mandate rigorous computational testing protocols. This includes the execution of advanced Computer Aided Design (CAD) modeling, complex aerodynamic simulations, Finite Element Analysis (FEA), and Computational Fluid Dynamics (CFD) to accurately predict and mitigate aerodynamic drag and structural fatigue long before physical fabrication begins.
- **Material Science and Fabrication Optimization:** To command the strategic selection of aerospace grade materials, composite structures, and lightweight polymers. The Lead must meticulously manage critical payload weight distribution, thrust to weight ratios, and advanced chassis manufacturing processes, such as precision 3D printing and carbon fiber layup, to strictly optimize both maximum flight endurance and operational durability.
- **Mentorship and Quality Assurance:** To actively mentor undergraduate project members in advanced mechanical engineering principles, guaranteeing that all physical builds strictly adhere to established aviation safety standards and successfully pass exhaustive pre flight structural inspections.

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Avionics and Embedded Systems Lead (PG Only)

- **Hardware Architecture and System Integration:** To exercise complete technical oversight regarding the internal electronics architecture and physical hardware integration for all club aerial systems. The Lead must ensure the seamless, fault tolerant convergence of mechanical flight platforms with complex electronic brains and propulsion mechanisms.
- **Avionics Configuration and Telemetry:** To expertly manage the rigorous selection, precise wiring, and optimal software configuration of critical flight controllers, high performance companion computers, and secure RF communication telemetry links. This ensures highly stable, zero latency data transmission during long range or high altitude operations.
- **Sensor Fusion and Power Management:** To design, calibrate, and flawlessly implement highly complex, multi modal sensor arrays, incorporating technologies such as LiDAR, GPS RTK, and optical flow sensors. The Lead is strictly responsible for architecting robust, redundant power distribution boards and battery management systems that guarantee reliable, uninterrupted data acquisition and flight stability under extreme operational loads.
- **Safety Protocols and Hardware Debugging:** To establish stringent electrical safety protocols, conduct exhaustive ground testing of all embedded systems, and provide expert level hardware debugging to absolutely prevent mid air electrical failures and ensure total system reliability across all projects.

Software and Autonomy Lead (PG Only)

- **Software Stack Architecture and Deployment:** To serve as the chief software architect, directly leading the ground up development, secure deployment, and continuous maintenance of the entire UAV software stack. The Lead ensures that all onboard code is highly optimized, strictly version controlled, and entirely capable of executing complex mission parameters flawlessly.
- **Algorithmic Optimization and Autonomous Navigation:** To design, rigorously test, and aggressively optimize advanced flight control algorithms, dynamic obstacle avoidance protocols, and intelligent path planning mechanisms. The Lead is tasked with pushing the boundaries of AI driven autonomous navigation, enabling platforms to operate entirely independently in GPS denied or highly complex, unpredictable environments.
- **Computer Vision and Data Processing:** To comprehensively oversee all machine learning and computer vision tasks, including real time object detection, spatial mapping, and advanced geospatial payload data processing, ensuring that the autonomous systems can accurately interpret and react to their physical surroundings in real time.

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- **ROS Integration and Code Review:** To mandate and seamlessly facilitate the integration of the Robot Operating System (ROS) across all relevant club projects. The Lead must enforce rigorous code review practices, conduct extensive software in the loop (SITL) and hardware in the loop (HITL) simulations, and mentor junior developers in writing exceptionally clean, scalable, and mission critical code.

Founding Members

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Tushita Aggarwal

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Aditya N. Mohanty

Pranjal Pise

Ashmit Show

Pranav D.

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Parth Ray

Anand Nair

Dr. Rajesh Joseph Abraham

Founding Faculty in Charge, P.E.G.A.S.U.S.