



ACGCET Innovation and Startup Policy 2022

for Students and Faculty (As per the guidelines of NISP 2019 for HEIs)

A Guiding Framework for Alagappa Chettiar Government College of Engineering and Technology



AISP 2022



Alagappa Chettiar Government College of Engineering and Technology
Karaikudi – 630003, Tamilnadu, India.

(An Autonomous Institution of Tamilnadu State Government – Affiliated to Anna University, Chennai)
JUNE 2022



ABSTRACT

ACGCET Innovation and Startup Policy 2022 for Students and Faculty

**A Guiding Framework for Alagappa Chettiar College of Engineering and Technology
Karaikudi - 630 003, Tamilnadu, India**

The 'ACGCET Innovation and Startup Policy 2022' for students and faculty of Alagappa Chettiar College of Engineering and Technology, Karaikudi-630 003 will empower the institute to dynamically engage students, faculty and staff in innovation and entrepreneurship associated activities. This framework accelerates in fetching transparency in AISP, contribution of stakeholders, funding and performance considerations thus empowering formation of startups in the Institute, institutional infrastructure for startups and practices for nurturing innovations. This framework will also develop pedagogy interventions for entrepreneurship development collaboration, innovation pipeline and pathways for entrepreneurs at institute level. To an adequate extent, Institute involvement in co-creation, business relationships, knowledge exchange and entrepreneurial impact assessment are addressed to motivate the students to decide entrepreneurship as a career opportunity. Besides, this framework expedites the Institute to contribute in fetching uniformity across HEIs in terms of Intellectual Property ownership management and technology licensing, thus facilitating formation of a robust innovation and startup ecosystem at Institute.

20th June 2022



Message from Principal



Dr. K. Palani M.E., Ph.D.,
Principal & AISP Chairman
ACGCET

Innovation and entrepreneurship need to emerge as one of the primary goals of our education system and Alagappa Chettiar Government College of Engineering and Technology is making every viable effort to accomplish this target.

Faculty and students are aggressively promoting initiatives like entrepreneurship awareness programmes, hackathons, tech-fests, idea competition, startup bootcamps, etc. to nurture the culture of innovation in our esteemed institute.

It requires large number of students and faculty to work on new ideas and convert them into successful enterprises. Now, ACGCET Innovation and Startup Policy 2022 available for encouraging students and faculty to entrepreneurship related activities in our Institute.

I confidently trust that recommendations prescribed by the AISP development committee in this document will pave the way for developing and supporting an entrepreneurial culture in our Institute

I congratulate the AISP Development Committee for promoting robust Innovation and startup ecosystem within our ACGCET campus and wish it a splendid success.



My strong faith is that Innovation and Incubation need to be organically interlinked. New enterprises are unlikely to succeed without innovation. The goal of ACGCET should therefore be to link Innovation to Enterprises to financial success.

I earnestly cheer the AISP Development Committee for its initiatives towards strengthening of innovation and startup ecosystem in ACGCET and wish it a splendid triumph.



Dr. K. BASKARAN
Vice Principal & IIC President
ACGCET



Dr. A. SIVANANTHA RAJA
Controller of Examinations &
Professor and Head, Dept. of ECE

I believe that the 'ACGCET Innovation and Startup Policy 2022' will provide the required direction and support to Technology Business Incubators and Startups of ACGCET on handling Intellectual Property Rights, innovations and startup related issues.

I sincerely congratulate the AISP Development Committee for developing robust Innovation and entrepreneurship ecosystem within our institution and wish it a grand success.



AISP 2022 Development Committee Members

- | | | |
|----|---|-------------------------|
| 1. | Dr. K. PALANI
Principal, ACGCET, Karaikudi | Chairman |
| 2. | Dr. K. BASKARAN
Vice Principal & IIC President, ACGCET | Member |
| 3. | Dr. A. SIVANANTHA RAJA
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| 4. | Dr. K. RAMANATHAN
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| 7. | Prof. K. CHANDRA PRABHA
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| 8. | Dr. B. V. BHUVANESWARI
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| 9. | Dr. B. RAJESH KANNA
EDC Coordinator, ACGCET &
Assistant Professor, Dept. of ECE, ACGCET | NISP Coordinator |



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Preamble

With the intention of empowering us to realize the current role and contribution to streamline and strengthen the innovation and startup ecosystem in the ACGCET, MHRD Innovation Cell (MIC) and AICTE conducted a programme on "Orientation and Adoption of NISP at HEIs Level" during the month of August 2021 with the following learning intentions:

- Motivation for adoption of NISP by HEIs
- Provisions and components in NISP for HEIs to implement
- Desirable methodologies, expected outcomes and impact assessments to be created at both Micro & Macro level and Short & Long Term
- Mission Sheet preparation: To-do list for adoption.

Principal of Alagappa Chettiar Government College of Engineering and Technology constituted a nine-member committee according to MIC guidelines to brainstorm and develop ACGCET Innovation and Startup Policy version 2.0(AISP 2.0) to address the need for inculcation of innovation and entrepreneurial culture in the Institute. This committee considered diverse aspects for nurturing innovation and startup culture in ACGCET, which covers Norms for technology transfer and commercialization, Intellectual Property ownership, revenue sharing mechanisms, equity sharing, etc. ACGCET Innovation and Startup Policy 2022 for students and faculty was developed after numerous rounds of healthy discussions.

Vision

To generate eminent technology and knowledge-based startup ecosystem by nurturing the culture of innovation and entrepreneurship which contributes to increased knowledge, wealth and employment in our society.

Mission

- To encourage and support students, faculty and staff for considering startup and entrepreneurship as the career opportunity.
- To orient institute educational infrastructure towards startups and entrepreneurships.
- To strengthen the innovation-based entrepreneurship development infrastructure
- To provide enabling mechanisms for startups through training and skill development, capacity building, access to knowledge & support services, networking etc.
- To provide the guidelines to stakeholders for developing entrepreneurial agenda, managing Intellectual Property Rights (IPR) ownership and technology licensing, and equity sharing in startups/enterprises by faculty and students.

1. Strategies and Governance

- 1.1. Entrepreneurship promotion development will be one of the major dimensions of the ACGCET strategies. To facilitate development of an entrepreneurial ecosystem in the ACGCET and nearby area, specific objective and associated performance indicator will be periodically defined for assessment.
- 1.2. Implementation of entrepreneurial vision in ACGCET will be achieved through mission statements rather than stringent control system. The entrepreneurial agenda will be responsibility of the NISP Coordinator, ACGCET to bring in required commitment and well understood by the Top Management. However, promoting entrepreneurship requires a different type of mind set as compared to other academic activities. Therefore, NISP Coordinator, ACGCET will have large industry and business exposure.
- 1.3. Resource mobilization plan will be worked out at the ACGCET level for supporting innovation, pre-incubation, incubation infrastructure and facilities. A sustainable financial strategy will be defined in order to reduce the organizational constraints to work on the entrepreneurial agenda.
 - 1.3.1. Investment in the entrepreneurial activities will be a part of the institutional financial strategy. Minimum 1% fund of the total annual budget of the institution will be allocated for funding and supporting innovation and startups related activities through creation of separate ‘Innovation fund’.
 - 1.3.2. The strategy will also involve raising funds from diverse external funding sources through government (state and central) such as DST, DBT, MHRD, AICTE, TDB, TIFAC, DSIR, CSIR, BIRAC, NSTEDB, NRDC, Startup India, Invest India, MeitY, MSDE, MSME, etc. and nongovernment sources.
 - 1.3.3. To support technology incubators, ACGCET will approach private and corporate sectors to generate funds, under Corporate Social Responsibility (CSR) as per Section 135 of the Company Act 2013.
 - 1.3.4. ACGCET will also raise funding through sponsorships and donations. ACGCET will actively engage alumni network for promoting Innovation & Entrepreneurship.
- 1.4. For expediting the decision making, hierarchical barriers will be minimized and individual autonomy and ownership of initiatives will be promoted.
- 1.5. Importance of innovation and entrepreneurial plan will be known across the various departments of ACGCET and will be promoted and highlighted at Institute Academic Calendar programs such as conferences, convocations, workshops, etc.
- 1.6. Action plan of AISP 2021 for the students and faculty will be formulated at ACGCET level, having well-defined short-term and long-term goals.
- 1.7. ACGCET will develop and implement innovation and entrepreneurship strategy and policy for the entire Institute in order to integrate the entrepreneurial activities across various centers for excellence, departments, faculties, career services within the Institute, thus breaking the silos.
- 1.8. Product to market strategy for startups can be developed by the ACGCET on case to case basis.

- 1.9. Development of entrepreneurship culture should not be limited within the boundaries of the Institute.
 - 1.9.1. ACGCET will be the driving force in developing entrepreneurship culture in its vicinity (regional, social and community level). This shall include giving opportunity for regional startups, provision to extend facilities for outsiders and active involvement of the Institute in defining strategic direction for local development.
 - 1.9.2. Strategic international partnerships will be developed using bilateral and multilateral channels with international innovation clusters and other relevant organizations. Moreover, international exchange programs, internships, engaging the international faculties in innovation and entrepreneurship will also be promoted.

2. Startups Enabling ACGCET Infrastructure

Pre-incubation and incubation facilities for nurturing innovations and startups will be created. Incubation and Innovation can be organically interlinked and effort will be to link Innovation to Enterprises to Financial Success.

- 2.1. ACGCET will create facilities within the institute for supporting pre-incubation (e.g. IIC as per the guidelines by MHRD's Innovation Cell, EDC, Innovation Cell, Startup Cell, Student Clubs, etc.) and Incubation/ acceleration by mobilizing resources from internal and external sources.
- 2.2. Pre-Incubation/Incubation facility will be accessible 24x7 to students, staff and faculty of all disciplines and departments of ACGCET.
- 2.3. Pre-incubation facilities will be managed by ACGCET which will be a separate entity registered under Section-8 of Company Act 2013. This will allow more freedom to Technology Business Incubators in decision making with less administrative hassles for executing the programs related to innovation, IPR and Startups. Moreover, they will have better accountable towards investors supporting the incubation facility.
- 2.4. Technology Business Incubator (TBI) will offer mentoring and other relevant services through Pre-incubation/Incubation process in-return for fees, equity sharing and (or) zero payment basis. The modalities regarding Equity Sharing in Startups supported through TBI will depend upon the nature of services offered.

3. Nurturing Innovations and Start ups

- 3.1. HEIs are expected to establish processes and mechanisms for easy creation and nurturing of Startups/Enterprises by students (UG, PG, Ph.D.), staff (including temporary or project staff), faculty, alumni and potential start up applicants even from outside the institutions.
- 3.2. While defining their processes, institutions will ensure to achieve following:
 - 3.2.1. Incubation support: Pre-incubation & Incubation facility to start ups by students, staff and faculty for mutually acceptable time-frame.

- 3.2.2. ACGCET allow licensing of IPR from institute to start up: Ideally students and faculty members intending to initiate a startup based on the technology developed or co-developed by them or the technology owned by the institute, should be allowed to take a license on the said technology on easy term, either in terms of equity in the venture and/ or license fees and/ or royalty to obviate the early stage financial burden.
- 3.2.3. ACGCET may allow students / staff to work on their innovative projects and setting up start-ups (including Social Start-ups) or work as intern / part-time in start-ups (incubated in any recognized Incubators) while studying / working with due approval of competent authority. Student Entrepreneurs may earn credits for working on innovative prototypes/Business Models. ACGCET will develop clear guidelines to formalize this mechanism. Student inventors may also be allowed to opt for start-up in place of their mini project/ major project, seminars, summer trainings. The area in which student wants to initiate a start-up may be interdisciplinary or multidisciplinary. However, the student must describe how they will separate and clearly distinguish their ongoing research activities as a student from the work being conducted at the start up.
- 3.3. Students who are under incubation, but are pursuing some entrepreneurial ventures while studying will be allowed to use their address in the institute to register their company with due permission from the Principal, IIC President, CoE and concerned department Head of ACGCET.
- 3.4. Student-entrepreneurs will be allowed to sit for the examination, even if their attendance is less than the minimum permissible percentage, with due permission from Principal, IIC President, CoE and concerned department Head of ACGCET.
- 3.5. ACGCET will allow their students to take a semester/year break (or even more depending upon the decision of review committee constituted by the Institute) to work on their start-ups and re-join academics to complete the course. Student entrepreneurs may earn academic credits for their efforts while creating an enterprise. ACGCET will set up a review committee for review of start up by students, and based on the progress made, it may consider giving appropriate credits for academics.
- 3.6. ACGCET will explore provision of accommodation to the entrepreneurs within the campus for some period of time.
- 3.7. ACGCET may allow faculty and staff to take off for a semester / year (or even more depending upon the decision of review committee constituted by the Institute) as sabbatical/ unpaid leave/ earned leave for working on startup and come back. Institute may consider allowing use of its resource to faculty/students/staff wishing to establish start up as a fulltime effort. The seniority and other academic benefits during such period may be preserved for such staff or faculty.
- 3.8. ACGCET will start startup and entrepreneurship subject for students. However, in long term, ACGCET may decide to start part-time/full time MS/ MBA/ PGDM (Innovation, entrepreneurship and venture development) program where one can get degree while incubating and nurturing a startup company as per guideline issued by AICTE.

- 3.9. ACGCET will facilitate the startup activities/ technology development by allowing students/ faculty/ staff to use Institute infrastructure and facilities, as per the choice of the potential entrepreneur in the following manners:
- 3.9.1. Short-term/ six-month/ one-year part-time entrepreneurship training.
 - 3.9.2. Mentorship support on regular basis.
 - 3.9.3. Facilitation in a variety of areas including technology development, ideation, creativity, design thinking, fund raising, financial management, cash-flow management, new venture planning, business development, product development, social entrepreneurship, product costing, marketing, brand-development, human resource management as well as law and regulations impacting a business.
 - 3.9.4. ACGCET may also link the startups to other seed-fund providers / angel funds/ venture funds or itself may set up seed-fund once the incubation activities mature. Further, necessary incentive in terms of resources, infrastructure, finance, time and support for students and faculties will be provided as per need basis.
 - 3.9.5. License institute IPR as discussed in section 4 below.
- 3.10. In return of the services and facilities, Technology Business Incubator may take 2% to 9.5% equity/ stake in the startup/ company, based on brand used, faculty contribution, support provided and use of institute's IPR (a limit of 9.5% is suggested so that Institute has no legal liability arising out of startup. The Institute will normally take much lower equity share, unless its full-time faculty/ staff have substantial shares). Other factors for consideration should be space, infrastructure, mentorship support, seed funds, support for accounts, legal, patents etc.
- 3.10.1. For staff and faculty, institute can take no-more than 20% of shares that staff / faculty takes while drawing full salary from the Institute; however, this share will be within the 9.5% cap of company shares, listed above.
 - 3.10.2. No restriction on shares that faculty / staff can take, as long as they do not spend more than 20% of office time on the startup in advisory or consultative role and do not compromise with their existing academic and administrative work / duties. In case the faculty/ staff holds the executive or managerial position for more than three months in a startup, then they will go on sabbatical/ leave without pay/ earned leave.
 - 3.10.3. In case of compulsory equity model, Startup may be given a cooling period of 3 months to use incubation services on rental basis to take a final decision based on satisfaction of services offered by the ACGCET-TBI. In that case, during the cooling period, ACGCET will not force startup to issue equity on the first day of granting incubation support.
- 3.11. ACGCET will also provide services based on mixture of equity, fee-based and/ or zero payment model. So, a startup may choose to avail only the support, not seed funding, by the TBI on rental basis.
- 3.12. ACGCET could extend this startup facility to alumni of the Institute as well as outsiders.
- 3.13. Participation in startup related activities needs to be considered as a legitimate activity of faculty in addition to teaching, R&D projects, industrial consultancy and management duties and must be considered while evaluating the annual

- performance of the faculty. Every faculty may be encouraged to mentor at least one startup.
- 3.14. Product development and commercialization as well as participating and nurturing of startups would now be added to a bucket of faculty-duties and each faculty would choose a mix and match of these activities (in addition to minimum required teaching and guidance) and then respective faculty are evaluated accordingly for their performance and promotion. Institute might also need to update/change/revise performance evaluation policies for faculty and staff as stated above.
 - 3.15. ACGCET ensure that at no stage any liability accrue to it because of any activity of any startup.
 - 3.16. ACGCET may consider modifying their policy in spirit of these guidelines where a student/ faculty startup policy is pre-existing in an institute.

4. Product Ownership Rights for Technologies Developed at ACGCET

- 4.1. When ACGCET facilities / funds are used substantially or when IPR is developed as a part of curriculum/ academic activity, IPR is to be jointly owned by inventors and the ACGCET.
 - 4.1.1. Inventors and ACGCET could together license the product / IPR to any commercial organization, with inventors having the primary say. License fees could be either / or a mix of:
 - 4.1.1.1. Upfront fees or one-time technology transfer fees
 - 4.1.1.2. Royalty as a percentage of sale-price
 - 4.1.1.3. Shares in the company licensing the product
 - 4.1.2. ACGCET will not hold the equity as per the current statute, so ACGCET-TBIs will hold equity on their behalf.
 - 4.1.3. If one or more of the inventors wish to incubate a company and license the product to this company, the royalties would be no more than 4% of sale price, preferably 1 to 2%, unless it is pure software product. If it is shares in the company, shares will again be 1% to 4%. For a pure software product licensing, there may be a revenue sharing to be mutually decided between the ACGCET Incubation Foundation and the incubated company.
- 4.2. On the other hand, if product/ IPR is developed by innovators not using any ACGCET facilities, outside office hours (for staff and faculty) or not as a part of curriculum by student, then product/ IPR will be entirely owned by inventors in proportion to the contributions made by them. In this case, inventors can decide to license the technology to third parties or use the technology the way they deem fit.
- 4.3. If there is a dispute in ownership, a minimum five membered committee consisting of two faculty members (having developed sufficient IPR and translated to commercialization), two of the ACGCET industry experts / alumni (having experience in technology commercialization) and one legal advisor with experience in IPR, will examine the issue after meeting the inventors and help them settle this, hopefully to everybody's satisfaction. ACGCET can use alumni/ faculty of other institutes as members, if they cannot find sufficiently experienced alumni / faculty of their own.

- 4.4. ACGCET TBI Center / TBI will only be a coordinator and facilitator for providing services to faculty, staff and students. They will have no say on how the invention is carried out, how it is patented or how it is to be licensed however in specific case, clarifications can be sought. When ACGCET is paying for patent filing, Institute will constitute a committee which can examine whether the IPR is worth patenting. The committee should consist of faculty who have experience and excelled in technology translation. If inventors are using their own funds or non-Institute funds, then they alone should have a say in patenting.
- 4.5. ACGCET decision-making body with respect to incubation / IPR / technology-licensing will consist of faculty and experts who have excelled in technology translation. Other faculty in ACGCET will have no say, including heads of departments, CoE, IIC President, Vice Principal and Principal.
- 4.6. Interdisciplinary research and publication on startup and entrepreneurship will be promoted by the ACGCET.

5. Organizational Capacity, Human Resources and Incentives

- 5.1. ACGCET will recruit staff that have a strong innovation and entrepreneurial/ industrial experience, behaviour and attitude. This will help in fostering the Innovation and entrepreneurial culture.
 - 5.1.1. Some of the relevant faculty members with prior exposure and interest should be deputed for training to promote innovation and entrepreneurial.
 - 5.1.2. To achieve better engagement of staff in entrepreneurial activities, ACGCET policy on career development of staff should be developed with constant upskilling.
- 5.2. Faculty and departments of the ACGCET will work in coherence and cross-departmental linkages will be strengthened through shared faculty, cross-faculty teaching and research in order to gain maximum utilization of internal resources and knowledge.
- 5.3. Periodically some external subject matter experts such as guest lecturers or alumni can be engaged for strategic advice and bringing in skills which are not available internally.
- 5.4. Faculty and staff will be encouraged to do courses on innovation, entrepreneurship management and venture development.
- 5.5. In order to attract and retain right people, ACGCET will develop academic and non-academic incentives and reward mechanisms for all staff and stakeholders that actively contribute and support entrepreneurship agenda and activities.
 - 5.5.1. The reward system for the staff may include sabbaticals, office and lab space for entrepreneurial activities, reduced teaching loads, awards, trainings, etc.
 - 5.5.2. The recognition of the stakeholders may include offering use of facilities and services, strategy for shared risk, as guest teachers, fellowships, associateships, etc.
 - 5.5.3. A performance matrix will be developed and used for evaluation of annual performance.

6. Creating Innovation Pipeline and Pathways for Entrepreneurs at ACGCET Level

- 6.1. To ensure exposure of maximum students to innovation and pre incubation activities at their early stage and to support the pathway from ideation to innovation to market, mechanisms will be devised at ACGCET level.
 - 6.1.1. Spreading awareness among students, faculty and staff about the value of entrepreneurship and its role in career development or employability will be a part of the ACGCET entrepreneurial agenda.
 - 6.1.2. Students/ staff will be taught that innovation (technology, process or business innovation) is a mechanism to solve the problems of the society and consumers. Entrepreneurs will innovate with focus on the market niche.
 - 6.1.3. Students will be encouraged to develop entrepreneurial mindset through experiential learning by exposing them to training in cognitive skills (e.g. design thinking, critical thinking, etc.), by inviting first generation local entrepreneurs or experts to address young minds. Initiatives like idea and innovation competitions, hackathons, workshops, bootcamps, seminars, conferences, exhibitions, mentoring by academic and industry personnel, throwing real life challenges, awards and recognition will be routinely organized.
 - 6.1.4. To prepare the students for creating the start up through the education, integration of education activities with enterprise-related activities will be done.
- 6.2. ACGCET will link their start-ups and companies with wider entrepreneurial ecosystem and by providing support to students who show potential, in pre-startup phase. Connecting student entrepreneurs with real life entrepreneurs will help the students in understanding real challenges which may be faced by them while going through the innovation funnel and will increase the probability of success.
- 6.3. ACGCET will establish Institution's Innovation Councils (IICs) as per the guidelines of MHRD's Innovation Cell and allocate appropriate budget for its activities. IICs should guide institutions in conducting various activities related to innovation, startup and entrepreneurship development. Collective and concentrated efforts should be undertaken to identify, scout, acknowledge, support and reward proven student ideas and innovations and to further facilitate their entrepreneurial journey
- 6.4. For strengthening the innovation funnel of the ACGCET, access to financing must be opened for the potential entrepreneurs.
 - 6.4.1. Networking events must be organized to create a platform for the budding entrepreneurs to meet investors and pitch their ideas.
 - 6.4.2. Provide business incubation facilities: premises at subsidised cost. Laboratories, research facilities, IT services, training, mentoring, etc. will be accessible to the new startups.
 - 6.4.3. A culture needs to be promoted to understand that money is not FREE and is risk capital. The entrepreneur must utilize these funds and return. While funding is taking risk on the entrepreneur, it is an obligation of the

entrepreneur to make every effort possible to prove that the funding agency did right in funding him/ her.

- 6.5. ACGCET must develop a ready reckoner of Innovation Tool Kit, which must be kept on the homepage on Institute website to answer the doubts and queries of the innovators and enlisting the facilities available at the Institute.

7. Norms for Faculty Startups

- 7.1. For better coordination of the entrepreneurial activities, norms for faculty to do startups will be created by the ACGCET. Only those technologies will be taken for faculty startups which originate from ACGCET campus.
 - 7.1.1. Role of faculty may vary from being an owner/ direct promoter, mentor, consultant or as on-board member of the startup.
 - 7.1.2. ACGCET will work on developing a policy on 'conflict of interests' to ensure that the regular duties of the faculty don't suffer owing to his/her involvement in the startup activities.
 - 7.1.3. Faculty startup may consist of faculty members alone or with students or with faculty of other institutes or with alumni or with other entrepreneurs.
- 7.2. In case the faculty/ staff holds the executive or managerial position for more than three months in a startup, they will go on sabbatical/ leave without pay/ utilize existing leave.
- 7.3. Faculty must clearly separate and distinguish on-going research at the ACGCET from the work conducted at the startup/ company.
- 7.4. In case of selection of a faculty start up by an outside national or international accelerator, a maximum leave (as sabbatical/ existing leave/ unpaid leave/ casual leave/ earned leave) of one semester/ year (or even more depending upon the decision of review committee constituted by the ACGCET) may be permitted to the faculty.
- 7.5. Faculty must not accept gifts from the startup.
- 7.6. Faculty must not involve research staff or other staff of ACGCET in activities at the startup and vice-versa.
- 7.7. Human subject related research in startup should get clearance from ethics committee of the ACGCET.

8. Pedagogy and Learning Interventions for Entrepreneurship Development

- 8.1. Diversified approach should be adopted to produce desirable learning outcomes, which will include cross disciplinary learning using mentors, labs, case studies, games, etc. in place of traditional lecture-based delivery.
 - 8.1.1. Student clubs/ bodies/ departments will be created for organizing competitions, bootcamps, workshops, awards, etc. These bodies will be involved in ACGCET strategy planning to ensure enhancement of the student's thinking and responding ability.

- 8.1.2. ACGCET will start annual ‘INNOVATION & ENTREPRENEURSHIP AWARD’ to recognize outstanding ideas, successful enterprises and contributors for promoting innovation and enterprises ecosystem within the Institute.
- 8.1.3. For creating awareness among the students, the teaching methods will include case studies on business failure and real-life experience reports by startups.
- 8.1.4. Tolerating and encouraging failures: Our systems are not designed for tolerating and encouraging failure. Failures need to be elaborately discussed and debated to imbibe that failure is a part of life, thus helping in reducing the social stigma associated with it. Very importantly, this will be a part of ACGCET philosophy and culture.
- 8.1.5. Innovation champions will be nominated from within the students/ faculty/ staff for each department/ stream of study.
- 8.2. Entrepreneurship education will be imparted to students at curricular/ cocurricular/ extracurricular level through elective/ short term or long-term courses on innovation, entrepreneurship and venture development. Validated learning outcomes will be made available to the students.
 - 8.2.1. Integration of expertise of the external stakeholders will be done in the entrepreneurship education to evolve a culture of collaboration and engagement with external environment.
 - 8.2.2. In the beginning of every academic session, ACGCET will conduct an induction program about the importance of Innovation and Entrepreneurship, so that freshly inducted students are made aware about the entrepreneurial agenda of the ACGCET and available support systems. Curriculum for the entrepreneurship education will be continuously updated based on entrepreneurship research outcomes. This will also include case studies on failures.
 - 8.2.3. Industry linkages will be leveraged for conducting research and survey on trends in technology, research, innovation, and market intelligence.
 - 8.2.4. Sensitization of students will be done for their understanding on expected learning outcomes.
 - 8.2.5. Student innovators, startups, experts must be engaged in the dialogue process while developing the strategy so that it becomes need based.
 - 8.2.6. Customized teaching and training materials will be developed for startups.
 - 8.2.7. It must be noted that not everyone can become an entrepreneur. The entrepreneur is a leader, who would convert an innovation successfully into a product, others may join the leader and work for the startup. It is important to understand that entrepreneurship is about risk taking. One must carefully evaluate whether a student is capable and willing to take risk.
- 8.3. Pedagogical changes need to be done to ensure that maximum number of student projects and innovations are based around real life challenges. Learning interventions developed by the ACGCET for inculcating entrepreneurial culture will be constantly reviewed and updated.

9. Collaboration, Co-creation, Business Relationships and Knowledge Exchange

- 9.1. Stakeholder engagement will be given prime importance in the entrepreneurial agenda of the ACGCET by finding potential partners, resource organizations, micro, small and medium sized enterprises (MSMEs), social enterprises, schools, alumni, professional bodies and entrepreneurs to support entrepreneurship and co-design the programs.
 - 9.1.1. To encourage co-creation, bi-directional flow/ exchange of knowledge and people will be ensured between institutes/ organisations such as incubators, software technology parks of India and science parks, etc.
 - 9.1.2. ACGCET will organize networking events for better engagement of collaborators and will open up the opportunities for staff, faculty and students to allow constant flow of ideas and knowledge through meetings, workshops, space for collaboration and lectures etc.
 - 9.1.3. Mechanism will be developed by the ACGCET to capitalize on the knowledge gained through these collaborations.
 - 9.1.4. Care will be taken to ensure that events don't become an end goal. First focus of the Technology Business Incubator will be to create successful ventures.
- 9.2. ACGCET will develop policy and guidelines for forming and managing the relationships with external stakeholders including private industries.
- 9.3. Knowledge exchange through collaboration and partnership will be made a part of ACGCET policy and Institute will provide support mechanisms and guidance for creating, managing and coordinating these relationships.
 - 9.3.1. Through formal and informal mechanisms such as internships, teaching and research exchange programmes, clubs, social gatherings, etc., faculty, staff and students of the ACGCET will be given the opportunities to connect with their external environment.
 - 9.3.2. Connect of the ACGCET with the external environment must be leveraged in form of absorbing information and experience from the external ecosystem into the Institute environment.
 - 9.3.3. Single Point of Contact (SPOC) mechanism will be created in the ACGCET for the students, faculty, collaborators, partners and other stakeholders to ensure access to information.
 - 9.3.4. Mechanisms will be devised by the ACGCET to ensure maximum exploitation of entrepreneurial opportunities with industrial and commercial collaborators.
 - 9.3.5. Knowledge management will be done by the ACGCET through development of innovation knowledge platform using in-house Information & Communication Technology (ICT) capabilities.

10. Entrepreneurial Impact Assessment

- 10.1. Impact assessment of ACGCET entrepreneurial initiatives such as preincubation, incubation, entrepreneurship education will be performed regularly using well defined evaluation parameters.
 - 10.1.1. Monitoring and evaluation of knowledge exchange initiatives, engagement of all departments and faculty in the entrepreneurial teaching and learning will be assessed.
 - 10.1.2. Number of start-ups created, support system provided at the Institute level and satisfaction of participants, new business relationships created by the ACGCET will be recorded and used for impact assessment.
 - 10.1.3. Impact will also be measured for the support system provided by the ACGCET to the student entrepreneurs, faculty and staff for pre-incubation, incubation, IPR protection, industry linkages, exposure to entrepreneurial ecosystem, etc.
- 10.2. Formulation of strategy and impact assessment will go hand in hand. The information on impact of the activities will be actively used while developing and reviewing the entrepreneurial strategy.
- 10.3. Impact assessment for measuring the success will be in terms of sustainable social, financial and technological impact in the market. For innovations at precommercial stage, development of sustainable enterprise model is critical. Commercial success is the only measure in long run.

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Way Forward

Uniform and successful implementation of the AISP 2021 for students and faculty across the various departments of ACGCET is the main objective. In order to achieve this, full-fledged support from the various departments of ACGCET will be important. The roadmap suggested through this document is the broad guidelines and the institute is expected to make use of already available infrastructure as much as possible to achieve the implementation of suggestive measures.

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Glossary

Accelerators	Startup Accelerators design programs in batches and transform promising business ideas into reality under the guidance of mentors and several other available resources.
Angel Fund	An angel investor is a wealthy individual who invests his or her personal capital and shares experiences, contacts, and mentors (as possible and required by the startup in exchange for equity in that startup). Angels are usually accredited investors. Since their funds are involved, they are equally desirous in making the startup successful.
Cash flow management	The Process of tracking how much money is coming into and going out of your business.
Co-Creation	The Act of creating together. When applied in business, it can be used as is an economic strategy to develop new business models, products and services with customers, clients, trading partner or other parts of the same enterprise or venture.
Compulsory Equity	An equity share, commonly referred to as ordinary share also, represents the form of fractional or part ownership in which a shareholder, as a fractional owner, undertakes the maximum entrepreneurial risk associated with a business venture. The holders of such shares are members of the company and have voting rights.
Corporate Social Responsibility	A self-regulating business model that helps a company be socially accountable – to itself, its stakeholders, and the public.
Cross-disciplinary Entrepreneurial culture	It refers to teaching, learning, and scholarship activities that cut across disciplinary boundaries.
Entrepreneurial individual	A culture/ society that enhance the exhibition of the attributes, values, beliefs and behaviors that are related to entrepreneurs.
Entrepreneurship education	An Individual who has an entrepreneurial mindset and wants to make his/her idea Individuals successful.
Experiential learning	It seeks to provide students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings.
Financial management	The process of learning through experience, and is more specifically defined as learning through reflection on doing.
Hackathon	The application of general principles of management to the financial possessions of an enterprise.
Host Institution	A hackathon is a design sprint-like event in which computer programmers and others involved in software development, including graphic designers, interface designers, project managers, and others, often including domain experts, collaborate intensively on software projects.
Incubation	Host Institution Host institutions refer to well-known technology, management and R&D institutions working for developing startups and contributing towards developing a favorable entrepreneurial ecosystem.
Intellectual Property	A unique and highly flexible combination of business development processes, infrastructure and people, designed to nurture and grow new and small businesses by supporting them through the early stages of development.
Rights Licensing	A licensing is a partnership between an intellectual property rights owner (licensor) and another who is authorized to use such rights (licensee) in exchange for an agreed payment (fee or royalty).
Knowledge Exchange	Knowledge exchange is a process which brings together academic staff, users of research and wider groups and communities to exchange ideas, evidence and expertise.

Pedagogy and Experiential	It refers to specific methods and teaching practices (as an academic subject or theoretical concept) which would be applied for students working on startups. The experiential learning method will be used for teaching 'startup related concepts and contents' to introduce a positive influence on the thought processes of students. Courses like 'business idea generation' and 'soft skills for startups' would demand experiential learning rather than traditional class room lecturing. Business cases and teaching cases will be used to discuss practical business situations that can help students to arrive at a decision while facing business dilemma(s). Field based interactions with prospective customers; support institutions will also form a part of the pedagogy which will orient the students as they acquire field knowledge.
Pre-incubation	It typically represents the process which works with entrepreneurs who are in the very early stages of setting up their company. Usually, entrepreneurs come into such programs with just an idea of early prototype of their product or service. Such companies can graduate into full-fledged incubation programs.
Prototype	Prototype A prototype is an early sample, model, or release of a product built to test a concept or process.
Science parks	A science park, also known as a research park, technology park or innovation centre, is a purpose-built cluster of office spaces, labs, workrooms and meeting areas designed to support research and development in science and technology.
Seed fund	A form of securities offering in which an investor invests capital in a startup company in exchange for an equity stake in the company.
Special Purpose Vehicle	It is also called a special purpose entity, is a subsidiary created by a parent company to isolate financial risk. Its legal status as a separate company makes its obligations secure even if the parent company goes bankrupt.
Startup	An entity that develops a business model based on either product innovation or service innovation and makes it scalable, replicable and self-reliant and as defined in Gazette Notification No. G.S.R. 127(E) dated February 19, 2019.
Technology Business incubator (TBI)	It is an entity, which helps technology-based Incubator startup businesses with all the necessary resources/support that the startup needs to evolve and grow into a mature business.
Technology commercialization	The process of transitioning technologies from Commercialization the research lab to the marketplace.
Technology licensing	Agreement whereby an owner of a technological intellectual property (the licensor) allows another party (the licensee) to use, modify, and/or resell that property in exchange for a compensation.
Technology management	The integrated planning, design, optimization, operation and control of technological products, processes and services.
Venture Capital	It is the most well-known form of startup funding. Venture Capitalists (VCs) typically reserve additional capital for follow-up investment rounds. Another huge value that VCs provide is access to their networks for employees or clients for products or services of the startup.

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